# Genesee Farmer.

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## EXPERIMENTS ON THE GROWTH OF BARLEY BY DIFFERENT MANURES.

The last *Journal of the Royal Agricultural Society* contains the results of a series of experiments "on the growth of barley by different manures, continuously on the same land," by Messrs. Lawes & Gilbert, of Rothamsted, England. The paper is a most able and elaborate one, occupying about eighty pages of the *Journal*, and contains so many interesting and important results, that we fear it will be impossible to do justice to the subject in the limited space at our command.

The barley was grown each year on the same land for six consecutive years. The plot left entirely without manure, each year, produced in the six years 166 bushels, or an average of nearly 28 bushels per acre per annum. That dressed each year with "mixed alkalies" (300 lbs. sulphate of potash, 200 lbs. sulphate of soda, and 100 lbs. sulphate of magnesia,) produced in six years 173 bushels, or an average of nearly 29 bushels per acre—only one bushel per acre more than where no manure at all was used. 400 lbs. of superphosphate of lime per acre each year produced an average of 31 bushels; a plot with "mixed alkalies" and superphosphate, 34 bushels; 14 tons farm-yard manure per acre each year, an average of 43 bushels per acre; 275 lbs. nitrate of soda, 42 bushels; 100 lbs. each sulphate and muriate of ammonia, 38½ bushels; same quantity of ammonia salts with 600 lbs. "mixed alkalies," 39½ bushels; same quantity ammonia salts and 400 lbs. superphosphate of lime, 45½ bushels per acre; same quantities of ammonia salts, "mixed alkalies," and superphosphate, 46 bushels.

It is evident that, like wheat, barley requires for its maximum growth more nitrogen or ammonia than the atmosphere can supply. Our own experiments indicate that such is the case with Indian corn; and Mr. Lawes intimates, in a private letter, that, from a series of experiments he has made on meadows, that such is the case with the grasses.

Superphosphate of lime and the mixed alkalies had a much better effect on barley than they had on wheat—a result which Mr. Lawes attributes to the limited range of the roots of the barley plant as compared with wheat. Still, though mineral manures had some effect, it is quite evident that the principal substance required for the growth of a large crop of barley, as of wheat, is nitrogen (ammonia).

This conclusion is also confirmed by the results of another series of experiments given in the same paper. Barley was sown on land from which ten successive crops of turnips had been removed. One plot had received no manure for the past seven years, and another plot adjoining had received a heavy annual dressing of the various mineral manures; and yet the crop of barley was as large on the unmanured plot as on that which had received for so many years a liberal supply of minerals. The minerals had been applied for years; and though a portion had been removed in the turnips, yet there was a large excess remaining in the soil, and that not in a crude condition. If, as Prof. Way says, "the soil is a stomach," these minerals must have been thoroughly digested, and rendered fit for assimilation by the plants, and yet *they had no effect.* Could we have stronger proof of the fact that no amount of merely mineral plant-food will produce maximum crops of barley in the absence of nitrogen or ammonia?

In Mr. Lawes' experiments on wheat, an application of nitrogen (ammonia) always gave an increased yield of wheat; but the nitrogen contained in the increase yield of produce was in no case equal to the amount of nitrogen supplied in the manure. From this fact, which does not rest on a single experiment, but on a very extensive series of experiments, continued for fifteen years, it seems evident that wheat *destroys nitrogen during its growth.* From the similar chemical composition of barley, oats, rye, Indian corn, sugar cane, and the various grasses, it is probable that all these plants also destroy nitrogen during their growth. If this is the case, it follows that the extensive cultivation of these crops greatly impoverishes the soil of nitrogen, and that the great aim of all grain-growing

farmers should be the accumulation of nitrogen (or ammonia) on the farm.

The practical bearing of the question is easily perceived. Some of our correspondents have proposed to increase the fertility of the soil by growing crops of Indian corn, Chinese sugar cane, rye, oats, etc., and plowing them in as manure. Now, if these plants destroy nitrogen during their growth, it is clear that such a practice would not accomplish the object. We must grow plants which do not destroy nitrogen, or, in other words, plants which contain at least as much nitrogen as they remove from the soil. The same remarks are equally true, *so far as increasing the fertility of the soil* is concerned, whether these crops are plowed under or consumed on the farm by stock, and the manure returned to the soil. We can not pursue this subject further at the present time. We allude to it for the purpose of showing that it is not merely a scientific question, but one of great practical importance—one, in fact, that lies at the foundation of all judicious systems of rotation and manuring.

Mr. LAWES' experiments on barley prove most conclusively that, like wheat, it destroys nitrogen during its growth. This most extensive series of experiments show that, "within certain limits, nitrate of soda, ammoniacal salts, and rape cake, *all increase the produce of barley*, approximately in *proportion to the amounts of nitrogen they respectively supplied.*" But while this is the case, in no one instance has the increase contained anything like as much nitrogen as was supplied in the manure. *There was a loss of at least one half the nitrogen.* How this loss takes place we know not at present; science will doubtless discover the cause ere long. The *fact* of such a loss can not be doubted, and it is one of the most important facts which the application of science to agriculture has yet discovered.

## SPECIAL MANURES.

"WHEN chemical analysis first demonstrated that different classes of plants yield an ash of different composition, the idea of *special manure* had its origin. By special manures, were meant mixtures containing just the quantity of each ash ingredient removed from the soil by an average yield of each crop. But investigation has demonstrated that there are in general no practical advantages in these attempts to feed the plant by ration. Latterly, LAWES & GILBERT, of Rothamsted, England, believed to have established, by a multitude of field experiments, that ammonia is specially suited to the production of wheat, and phosphoric acid to the growth of turnips; but there are other equally authentic trials which as fully prove just the reverse."

The above is an extract from the article on Agricultural Chemistry in the *New American Cyclopædia*, written by Prof. S. W. JOHNSON—an article which, as a whole, though somewhat hastily written, we can not too highly commend. We are glad to see a writer of such great ability and of such eminent scientific attainments, speak out so distinctly against the utility of ordinary soil-analyses, and against the doctrine of *special manures;* for these two ideas have done much to retard agricultural improvement, and are now, wherever entertained, diverting the attention of scientific men from a line of inductive investigation which would in all probability lead to the discovery of many of the hidden laws of vegetable growth.

We fear, however, that the paragraph above quoted is likely to convey a wrong impression. We can not think that Prof. JOHNSON intended to class Messrs. LAWES & GILBERT among the advocates of *special manures*, for he well knows that it was precisely the "investigations" that have been instituted by these gentlemen that have "demonstrated" the unsoundness of the special manure theory. We accept Prof. JOHNSON's definition of the meaning of *special manures*—"mixtures containing just the quantity of each ash ingredient removed from the soil, by an average yield of each crop." In other words, the ash of wheat contains five times as much phosphoric acid as the ash of turnips, and, therefore, the soil or manure best adapted for the growth of wheat must contain four times as much phosphoric acid as a soil or manure suited to the growth of turnips. This was the fundamental idea of the doctrine of special manures. We are pleased to hear the Translator of LEIBIG's criticism on LAWES & GILBERT's experiments assert that these very experiments have "*demonstrated*" the fallacy of the pet theory of the great German chemist, for assuredly he must have had these investigations in view when he penned this sentence.

If the experiments of LAWES & GILBERT prove anything,—if they have "*demonstrated*" that the special manure theory is unsound—that wheat does not require more phosphoric acid in the soil than turnips,—they certainly indicate that "ammonia is specially suited to the production of wheat, and phosphoric acid to the growth of turnips." If these experiments are to be held of no more authority than others "*which prove just the reverse,*" then they are incapable of demonstrating the unsoundness of the special manure theory. If they have been made with sufficient accuracy to "*demonstrate*" that there is no advantage in attempting to feed plants with manures compounded according to the composition of their ashes, then they are equally good authority for showing that "ammonia is specially suited to the production of wheat, and phosphoric acid to the growth of turnips."

Let us glance a moment at a few of these experiments, selected from hundreds giving similar results. The experiments on wheat and on turnips were made on soil of similar character, and which had been impoverished by the growth of four crops without manure, previously to the commencement of the experiments. Wheat was grown successively on the same land every year, as also were the turnips. The wheat on the land without any manure produced, the first year, (1844,) 16 bushels per acre; the second year, 23 bushels; the third year, 17¾ bushels; and, on an average, about the same in subsequent years, varying a little with the season. Last year, (1857,) the fourteenth crop which has been removed in successive years from this soil without any manure was over 18 bushels per acre. Now mark the difference between this result and that obtained on similar soil where turnips were grown without manure. The first year, (1843,) the unmanured plot yielded 4¼ tons of turnip bulbs per acre; the second year, 2¼ tons; the third year only 13½ cwt. per acre; and in subsequent years, the production was even still less, the turnips being no larger than radishes, though throwing out very large roots in search of appropriate food.

It is evident that this soil, which contained sufficient plant-food for the production of a fair crop of wheat, was not capable of growing turnips, from a deficiency of the ingredients of plants. In other words, *turnips require in the soil, a larger quantity of some constituent or constituents of plant-food than wheat.* What that constituent is was discovered by the use of the different constituents of plants on other plots of turnips in the same field. Potash, soda, magnesia, sulphate of lime, salt, ammonia,—all these various constituents of plants were sown on different plots, but none of them, separately or together, supplied the deficiency—none of them enabled the soil to produce a good crop of turnips. But wherever superphosphate of lime was used, there the turnips rioted in more than pristine luxuriousness. On a plot adjoining that without manure, and which, in 1845, produced only 13½ cwt. of turnip bulbs per acre, 534 lbs. of superphosphate of lime per acre enabled the soil to grow nearly 13 tons of bulbs per acre, or about *twenty times* as much.

This is not the result of an ordinary hap-hazard experiment, but one of many hundreds affording similar results, and extending over a period of ten years, conducted with great care, and by men of science and practical experience, who devoted their entire time to these and similar investigations. Now what do these facts prove? Do they not *demonstrate* that turnips require for their maximum growth more phosphoric acid (superphosphate of lime) in the soil than wheat? This is all that is claimed—not that phosphoric acid is a *special manure* for turnips. Phosphoric acid will not produce a good crop of turnips, if any one of the other mineral constituents of plants is deficient in the soil; but what is claimed is this: that in the majority of cases, soils are deficient in available phosphoric acid for the growth of maximum crops of turnips, though they may at the same time contain enough for the production of a large crop of wheat. No crop we are acquainted with, requires so much available phosphoric acid in the soil as turnips, and therefore, there is no impropriety in stating that "phosphoric acid is *specially* suited to the growth of turnips," though the expression may not convey precisely the idea intended.

The same remarks will apply in regard to ammonia being "specially suited to the production of wheat." The experiment of Lawes & Gilbert prove that a soil may contain sufficient phosphoric acid even for the growth of turnips, and an abundance of every other mineral constituent of plant-food, and yet not yield a maximum crop of wheat, *but will do so when supplied with ammonia.* Superphosphate of lime, which had such a magical effect on turnips, had no effect on the wheat grown on a similar soil; other mineral manures had no effect; but wherever ammonia was used, the crop was greatly increased, and in some instances more than doubled.

Prof. Johnson says there are "other equally authentic trials which as fully prove just the reverse." If there are, we have never seen any account of them.

## AMERICAN AGRICULTURAL BOOKS.—No. 3.

Our correspondent B., in his "Suggested Items," alluding to previous articles on this subject, intimates that the books noticed last month can hardly be considered as "*American.*" This is true. They were not written by Americans; neither are their practical recommendations, in many cases, adapted to our climate and circumstances. Their *principles*, so far as correct, are of universal application. The writings of Boussingault, Johnston, and Stockhardt, are, in the main, as well adapted to America as they are to France, Scotland, or Germany. When we used the phrase "American books," we intended merely to designate such as were published in this country. The fact is, we have, strictly speaking, very few *American* agricultural books. Many of those purporting to be such, are little else than compilations from British authors. So long as the country can be flooded with cheap reprints of English works, we can hardly hope for distinctive American agricultural books, of real value. The demand for them, at the price

at which they must be sold to compete with such works as cost little more than the paper on which they are printed, would not warrant the labor. A man of sufficient talent can use his time to better advantage. Hence it is that many of our books are scissored from the current agricultural literature of the day, or transcribed from English cyclopædias. All that some of our book-makers claim is that they have "*Americanized*" the writings of foreign authors. Friend "B." will agree with us that the less said about most of what are claimed to be *American* agricultural books, the better for our literary reputation.

Before a man can teach, he must learn. Before we can have a high order of American agricultural literature—of books or periodicals—we must have private or public institutions for the development of facts—experimental farms, where practical problems can be solved, and the suggestions of science tested. Our agricultural information must be more accurate and extensive before we can have books that will satisfy the intelligent American farmer.

One of the most noteworthy of *American* agricultural books is *Nash's Progressive Farmer.**—Written in an easy, genial style, with no unnecessary use of scientific terms, savoring more of the quiet homestead than of the scrutinizing laboratory, we know of no work of the kind that can be perused with greater pleasure and profit. It is not a profound treatise. It never exhausts the patience—rarely exhausts the subject; selecting the most salient points, it pleasantly impresses them on the memory. It contains much that is true—little that is new; many things that are doubtful, and some, of course, that are erroneous. It is better calculated to engender a love for scientific and progressive farming than to satisfy the careful student.

The first chapter treats of the fifteen elements which compose all fertile soils, plants and animals. Of these it is said:

"If we analyze a stone, a handful of earth, a plant, a flower, a bone, a drop of water, a piece of flesh, almost anything we can think of, it is found to consist of one, two, three or more of these; seldom of one, oftener of two, very often of three, less frequently of four, and rarely of more than four."

It would be nearer the truth to say that a handful of earth, a plant, a flower, *almost anything we can think of*, contains oxygen, hydrogen, nitrogen and carbon, potash, soda, lime and magnesia, phosphorous, sulphur, iron, silicon (sand), alumina (clay), manganese—all fifteen—with the exception perhaps of the four last.

"Phosphorous is said to form a part of the seeds of many plants." Doubtless it does of *all* seeds used as food.

"If lime, after being taken from the kiln, is exposed to the air, it first absorbs moisture, then crumbles to powder, and in a few days takes carbonic acid from the air, and becomes carbonate of lime, (air-slacked,) just what it was in the quarry, except in structure."

This is calculated to convey a wrong impression. It is true that air-slaked lime is not as caustic as water-slacked, but it is by no means the mild carbonate of lime it was in the quarry, before the carbonic acid was driven off by burning. Only a little more than half of it is converted back into the mild form, (57.4 per cent.) The remainder (42.6 per cent.) is still caustic lime.

Chapter 2, on the Geology of Agriculture, contains much that is interesting and useful. However great may be the influence of geological formation on the soil, nearly all will agree with the author that "more depends upon the farmer *on* a farm than upon the rocks *under* it."

The chapter on "Vegetable Physiology in its relations to Agriculture"' is a pleasant statement of the principal changes which take place during the germination and growth of plants; the nature and sources of their food; their structure, &c.

The chapter on "Animals and their Products" is alone worth the price of the book. Some of the statements in regard to butter we should place under the head of "*doubtful.*" For instance—

"The sugar of milk gives a peculiar sweetness to the butter. * * This is an important consideration; for it is this sugar of milk that performs the double office of giving to the butter a luscious flavor, and of causing it to keep well. * * Washed butter may have a tolerable flavor at first, for it will retain a part of the sugar of milk in spite of bad management. But it will have given up to the water too much of its sugar of milk to allow of its keeping for any considerable time."

Whether it is best to wash out, or to work out, the buttermilk from butter, is a point we do not propose to discuss. It seems to be the opinion of the majority of experienced butter-makers, that when butter is intended to be kept for a considerable length of time, it should *not* be washed. On the other hand, it is quite certain that washed butter will keep very well. In 1850, we sold a considerable quantity of butter that was sent to California. It stood the long voyage well, and was pronounced excellent. This butter was *washed.*

But whether the practice is to be condemned or commended, the reason urged against the practice by Prof. NASH, is to us anything but satisfactory. Butter contains a small quantity of casein or curd, and sugar of milk. It is owing to the presence of these two substances that butter becomes rancid.

*The Progressive Farmer: A scientific treatise on Agricultural Chemistry, the Geology of Agriculture; on Plants, Animals, Manures, and Soils. Applied to Practical Agriculture. By J. A. NASH. New York: A. O. MOORE. Price $0.60.

Could we remove all the casein, no change would take place. Could we remove all the sugar, the tendency to rancidity would be greatly reduced if not entirely removed. The casein acts as a ferment, and, in the presence of air, soon changes the sugar into lactic acid; and, when mixed with oil, into butyric acid —an acid which emits a mingled odor of vinegar and *rancid butter*. The presence of salt arrests all change in casein itself, and consequently destroys its power of inducing change in other bodies in contact with it. Hence the use of salt. A *saturated solution* of sugar has the same effect. But that the small quantity of sugar of milk in butter "causes it to keep well," is contrary to the general laws of chemistry.

One recommendation in the manufacture of cheese is contrary to the practice of most American dairymen, though strictly in accordance with chemical principles:

"Special care should be taken to remove all the whey from the curd, or as nearly all as possible, *before salting:* and then afterwards to press the cheese thoroughly."

The chapter on "Manures" is in the main excellent, though there are some doubtful recommendations, such as *dissolving* bones in moistened ashes, and decomposing salt with lime; neither of which can be done.

The book ends with a valuable chapter on "Practical Agriculture," in which most of the principal points in good farming, especially in New England, are alluded to.

## THE ROTHAMSTED EXPERIMENTS.

The following extracts from a private letter from J. B. Lawes, Esq., possess so much general interest that we trust he will excuse us for giving them to the public:

"Rothamsted, St. Albans, Eng.
April 20, 1858.

"*Dear Sir:*—Your experiments upon Indian Corn are valuable as confirming the general character of cereal exhaustion. We still require experiments upon the Sugar Cane; but, as far as I can learn, guano containing a high percentage of ammonia is used with remarkable success.

"The experiments here are very much in the same position as when you left Rothamsted. We had a very fine season last year. The highest produce of wheat in the experimental field was fifty bushels per acre; that on the unmanured plot being between eighteen and nineteen bushels per acre.

"The report of the barley experiments you will have seen before this reaches you. It does much towards establishing the ammonia-exhausting character of the cereals.

"We are now beginning to publish the whole of the feeding experiments. They have required much labor to get them ready for the press.

"The question whether plants can absorb nitrogen from the air, is of great interest. It has been a subject of experiments in France. Those of M. Boussingault and other eminent chemists proving that plants are unable to do so, while those of M. Ville give a contrary result. Last year I had a series of experiments conducted here by Dr. Pugh, a young American who has been studying chemistry for some years in the best continental laboratories. He intended returning to America last autumn, but I have persuaded him to remain another year, to conduct a more extensive series of experiments upon this subject. The French chemists are looking anxiously for our results, as it is hoped they will settle the question. Dr. Pugh is a man of great abilities, and an excellent chemist. He can not fail to take an eminent position on his return to America. I shall give him a letter of introduction to you, on his return, as you will be glad to see a person who has passed two years at the scene of your former labors.

"With the exception of a series of experiments upon grass, I believe I have not made much addition to my field experiments. I think these experiments on grass are the most striking of any to the eye. Where the alkalies and phosphates alone are used, the pasture is a mass of clovers and trefoil; but when amonia is used, it is all grass.

Believe me, yours truly.
J. B. Lawes.

Joseph Harris.

## SUGGESTED ITEMS.—No. 21.

May-day is here, but it has not brought a great deal of grass with it—the 'bite' is short compared with what we expected from the early opening of the spring. It is especially so, when the farmer, tempted by the warm weather of mid-winter, allowed his stock to roam over his meadows and pastures. But what shall we now do? Cows and sheep have such a longing for grass that they grow poor on the best we can give them without it; so they must go and pick up what they can; it will soon be enough for them.

"*The best Grain Farm!*" How much I should have liked to have been with you on your visit to "The Premium Farm of the Empire State." It shows what judgment, skill, and "abundant capital" can do—and it is the three combined which do the work. Too many farmers, when they get a few dollars ahead, buy *more land*, instead of improving what they already have. Ten to one, the latter would be the more profitable course.

"*Experiments on Indian Corn*" I should like to see repeated in a dozen different cases. I hope the continued offer of the premium by the State Society will induce repeated trials, and that you will be among the competitors another year.

"*Johnston's Agricultural Chemistry,*" though scarcely an "American agricultural book," is well worthy the popularity it has obtained in this country. No farmer's library is complete without it, and we hope it will be read by the young, especially.

"*Curing Hay*" is often prolonged beyond all reason. Your correspondent has the right practice on this subject. Cut when free frow dew and rain, and grass will soon cure, and be a great deal better than if riper and dried longer.

"*Underdraining*" is a subject of which your readers will not tire, especially if treated as practically as by Mr. Caldwell. Let all who can, give their experience in the matter.

"*Thoughts by the Wayside*," of the character here indicated, are too often called out when traveling, and sometimes even at home. Let us look into the "holes and corners" of our practice, and see where we can amend.

"*Sowing Grass Seed in the Fall*," if done early—as soon as the first of September—will succeed first rate. The young grass must have time to get rooted before winter. This we have tried to our satisfaction, and would prefer September seeding in all cases, were not other work then so hurrying, and a drouth often to be feared. We shall seed some 15 acres on oats, this spring—and in the fall, also, if it does not prove successful.

"*Reaping and Mowing Machines*" will in a few years hang up the scythes and cradles on most farms, because they not only do the work quicker, but *better, and cheaper*,—and, prove a thing economical to a Yankee, and it is bound to go.

"*Horticultural Hints.*" Give us more of them. They are of the practical kind, such as will be of use in farmers' gardens. I trust every reader will have something to do with gardening, if it is no more than to raise a few flowers in the window.

Those who have room, should not neglect the vegetable garden, as directed last month. B.

*Niagara Co., N. Y., May*, 1858.

## NOTES FOR THE MONTH.—BY S. W.

Those Corn-Growing Experiments.—I had before read this truly important prize essay in the State Journal, and could but regret that so paltry a sum should be awarded for so much costly, painstaking labor, when so much money is yearly squandered by our Patent Office Department in worse than useless seed importations, etc.

One fact is established by these experiments, to wit: that our Western New York soils are not yet exhausted of their potash, like the eastern soils, as 400 lbs. of unleached maple ashes gave no more crop than 100 lbs. of gypsum, even on sandy land. On Long Island or in Rhode Island the result would have been very different. The largest yield—125 bushels of ears—was undoubtedly due to the double dose of Peruvian guano; but it should be remembered that guano is not a permanent stimulus, like stall manure, which is also rich in ammonia both actual and potential.

But the most note-worthy and singular result, as well as the most important to agriculture, is the effect of superphosphate of lime (soluble bone earth) on the early growth of Indian corn, and on the permanent growth of the Chinese sugar cane, whose stalks were increased one-half by its application; yet, however strange, to the cereal yield of corn it added nothing!

The result of these experiments with lime phosphates must give an increased reputation to the Mexican and inferior guanos, poor in ammonia salts, but rich in phosphate of lime, as manure for herbaceous plants, sugar cane, etc.

American Institute—New York Farmers' Club.—There has of late been an issue joined at the Farmers' Club in Gotham, between Wm. Lawton and others in favor, and H. Greeley against, plowing in green clover for manuring. As some dogmatism and very little argument has transpired to enlighten outsiders in the premises, it may be well to remark, that under certain conditions and circumstances, soiling cattle in the stalls and composting their droppings would be the most economical, beside giving the most manure to the soil for the crops grown. But on the large, all-arable farms of Western New York, where help is capricious and dear, with no swamps or marsh from which to quarry peat or muck, the plowing in of green clover or stiff pasture sod as an amendment to the soil, is undoubtedly the most feasible and economical. R. G. Pardee asserted, at the club, that "crops are not improved for manure by passing through animals;" yet he failed to say that animals are not sustained and improved by such a process! Analogous to this assertion is that of Solon Robinson, that "a ton of wheat bran is worth as much for manure as a ton of guano." But methinks there is more pith, point, and practical instruction, in Solon's late grind-stone story.

Those cheap Table Lands of Long Island.—On reading Dr. Peck's very descriptive advertisement of those peculiar scrub oak and pine plains, I could not but feel that the compact sea-washed sand and gravel of the antedeluvian ocean came nearer than eighteen inches of the surface in many places, or these lands, forty miles from New York, would not have remained thus long unimproved when offered at fifteen dollars an acre. Methinks apple trees, that send their roots many feet deep, and even red clover, with its long roots, could hardly flourish with such a detritus subsoil.

The Value of Oilcake Meal.—A neophyte in chemistry, who says he got his first and best lesson in agricultural chemistry from your last *Rural Annual*, having read your notice, in the last *Farmer*, of Mr. Swan's cheap oilcake, came to-day in hot haste to advise Knox that his oilcake was worth at least three dollars extra per ton, solely for the manure it made. Happening to be present, I told him that *Emery's Journal* said that the American double hydraulic presses rendered the cake as innutritious as dry chips. "A Daniel come to judgment," was his reply; "the pressing only condenses the manurial value by taking off the oil, which is worth no more than dry chips for manure." But Emery evidently considered the value of the cake in reference to its fat-forming elements only. There can be no doubt but that the manure from the animal fed on the pressed cake, is worth much more than it would be if the same weight of flax seed was substituted for the ground cake.

The Rhode Island Long White French Turnip.—This is probably of the ruta baga family, as it requires the same soil and treatment; but its flesh is very white and delicate, and free from the strong flavor of the baga. It does not yield as well by one-third, but it is a delicious winter and spring turnip for the table. There is another variety here of a rounder form, called Sweet Turnip, but not as good as the white.

*Waterloo, N. Y., May*, 1858.

Wakefield's Hand Corn Planter, mentioned in answer to "R. S." in the May No., is a good implement and works well. A little more strength in the working parts, would increase its value.—We have improved ours by riviting to the wood the part which is pressed into the ground, the small screws used at first will not last. J. H. B.

### HOW TO MAKE BAD BUTTER.

So many of our able correspondents have told us how to make *good* butter, that it may be interesting to some of our readers to learn how to make *bad* butter. Our respected friend PETERS, of Genesee county, furnishes the *Rural New-Yorker* some excellent rules for the guidance of those who are desirous of excelling in this particular branch of rural economy.

"The first step to be taken is, of course, to get your cows. If you purchase in the spring, get those which have been so badly wintered that they can hardly get up alone. If you have to help them up by the tail, all the better. If you winter them yourself, be cautious not to give them any shelter, no matter how bad the weather may be. If possible, don't give them a chance to get on the warm side of the barn or shed during snow storms, or cold storms of rain and snow. A little comfortable care might be injurious when they come to be milked in the spring. Keep them on musty, boggy hay, or rotten straw, and fodder when most convenient, only not too often. If this system is faithfully adhered to, and the cow is fool enough to live through and have a calf, the milk will be innocent of anything but a weak thin cream.

"Having obtained the milk, there are various ways for getting the cream. The most approved is to put it through a strainer that will stop a good sized potato, as by that means you secure such an admixture of foreign substances as will insure the adhesion of the particles, upon the same principle, I suppose, that masons mix hair with their mortar for plastering. If the weather be warm, set the milk in some warm room, and, if possible, near the sink or some other highly scented locality. As cream is very sensitive to the odor around it, this will secure the transfer to the butter of the strongest in circulation—an important point. Do not skim the milk, if you can help it, until the cream gets mouldy and slightly rancid. The stronger it gets, the stronger will be the butter. After skimming, let the cream stand several days in a warm room. This will help the flavor of the butter very much, and go far toward producing the desired taste and smell.

"After the cream is churned, and the butter 'come,' take it out of the churn with your hands. If they do not happen to be exactly clean at the moment, do not stop to wash them, as butter-milk is capital to whiten the hands, and make them look clean and delicate. Beside, soap and water are apt sometimes to make one's hands chap and look rough. Work the butter by hand, especially if soft and oily, and put in a good supply of coarse salt, as salt is cheap; and if you are not so stupid as to work it out in the butter-milk, it will help the butter weigh, and keep it from being eaten too rapidly when it gets upon the table.

"Pack the butter in tubs, as fast as you can make it; put a cloth over the tub, and let it stand in a damp, musty cellar. If the keg or tub gets pretty dirty outside, it will help the sale.

"In the summer, it will be important to let the cows run in a scanty pasture, and by all means compel them to drink from stagnant pools or ponds. You will be in great danger of losing all your labor if they have good feed and plenty of pure water—though, if my previous instructions be faithfully followed, the danger from the good feed and water will not be so great.

"There are many little matters, more or less essential to success, to which I have not alluded—such as not working out the butter-milk, a waste of labor, as it tends to destroy the mottled appearance of the butter, and prevents its becoming thoroughly rancid as soon as it otherwise might do."

### THE GOOD SELLS THE BAD.

EDITORS GENESEE FARMER:—Much, very much, has already been said, in the pages of the *Farmer*, upon the importance of making good butter and cheese; of obtaining for one's use, improved stock, implements of husbandry, fruit growing, etc., etc. All around, over and through—in the garden, the barn, the shed, the out-house, the dwelling-house, from the garret to the cellar, and from the cellar to the garret—have your correspondents led us, giving their views of the various things which pertain to the interest, comfort, convenience, and happiness of the farmer. Most willingly and profitably have we been led through the whole routine of the farmer's life. Still there are some things that claim our attention, of which little if anything has as yet been said; and of these I shall choose for my subject, the manner in which butter, cheese, and wool, are bought up in this part of the country; and I have no doubt that farmers in other parts can testify to what I am about to relate.—For instance, here, situated between three and four hundred miles distant from the city of New York, (our main market,) live men who have served a long and severe appenticeship among pine logs, saw-mills, and lumber, and who have turned their attention in earnest to agriculture. What I mean by agriculture is, anything and everything performed on a farm. Some of us take a great deal of pains, and produce as good wool, butter, and cheese, as can be found anywhere in the country, Orange county to the contrary notwithstanding. Butter, for the last five or six years, has averaged 20 cents delivered at the depot of the New York and Erie Railroad. This fall, during the panic, it has declined. When money goes up, produce invariably goes down. This we can neither let nor hinder. But I digress.

In the city of New York live produce merchants who hire A, B, and C, in the country, to buy butter, wool, or cheese, or all three, as the case may be, for a commission of one cent per pound. When butter is quoted 22 and 24 cents wholesale, they order to pay 20 cents and under as they can light of "chaps." Poor butter is out of the question—there is none. The small commission they receive blinds their eyes. They can not tell a firkin of prime butter from a soap-tub of lard. They pay 20 cents for that which is salted with two or three ounces of coarse barrel salt to the pound, the rest being composed of loppered milk and dairy grease, the least particle of which placed between the masticators, and the under jaw allowed to perform its office, would send the cold chills in beautiful waves and ringlets along down their spinal column.—They pay 20 cents for Coon butter—"rings on the tail"; or, in other words, that which is taken in by country merchants in exchange for goods, at all

times of the season, made by as many different persons nearly as there are pounds, and packed down in firkins as it comes in, the complexion being white, black, and yellow. Hence the term. They pay 20 cents for that which would vomit a dog, and only 20 cents for that which would melt as a sweet morsel under their tongues. When all is bought up that can be had, then comes the day of delivery, at the depot—the day the country takes a puke, and vomits forth this heterogeneous mass in the face and eyes of New York. But is there no difference in price when it reaches its destination? If not, then, verily, tobacco and bad whiskey have spoiled the taste and smell of this generation. But report says there is an inspector of butter, who examines into the various qualities, and marks the worth of each on their respective heads, varying in price from 10 to 30 cents per lb. If this be true, there is a difference at last. But it comes at the wrong time; it should be made with the producer and not with the speculator. So with cheese, and so with wool—dog's hair fetching within a penny or two per pound as much as the best merino. I ask, is this right? One and all—readers, writers, and editors, is there no remedy? Then where lies the encouragement for the farmer to improve his wool, or the good house wife to take particular pains with her butter and cheese for market. Still, were it not for the good, the bad would not sell at all.—But, does this make it right, just, or proper, that he who produces an inferior article should have the same as he who produces a superior article? Who says no? I, standing on tip-toe, with arms akimbo, hands clenched as if in spasms, head erect, eyes rolled toward the heavens, mouth agape, and face as long as a rail, brought down upon my heels with full force, jarring the house to the very center, causing my

> Old "o'man" from supper o'er specks to look up,
> While tea-pot turns full both saucer and cup,

say, no. J. C. ADAMS.

*Seymour, N. Y.*

## WHEAT TURNING YELLOW IN THE SPRING.

EDITORS GENESEE FARMER:—Considerable wheat, especially that growing on oak and pine land, has turned yellow. Generally, whole fields are thus affected, but sometimes portions of a field will be green. I believe that sown earliest is most affected. At any rate, two fields in good condition, similar soil, and separated only by a fence, are good specimens, the one of a healthy green, the other of a sickly yellow. The yellow field was sown the 7th of September, and the green field the very last days of September.

To-day I have examined the roots of the wheat plants in both fields, and find a considerable number of worms about the roots of the yellow wheat, and none at all about the green. These worms are from one-fourth to one-half inch in length, little if any larger than a cambric needle, and exactly the silvery color of the wheat rootlets. A neighbor, who was with me, said they were the product of the Hessian fly; but I told him I had supposed that the fly destroyed the wheat in the fall, before frost came; whereas, this field appeared thrifty till winter.

A reliable man told me, the other day, that he had had very fine crops of wheat from fields that were yellow in the spring and continued so until about heading out. An honest, intelligent young Englishman, who is working for me by the year, tells me that in Lincolnshire, Eng., a great wheat-growing county, the wheat frequently turns yellow in the spring, especially just after a heavy rain, and that, at such times, the farmers invariably start their heavy iron rollers, weighing from one to two tons and drawn by three or four horses, and that they say the rolling either kills the worms or stops their working; but, be that as it may, the wheat soon turns green again after being rolled. He says that some farmers use spike rollers, which mangle the wheat so that one would think it almost destroyed, but it thrives after such treatment. Of the appearance or kind of worms, he knows nothing.

I give these facts and statements for what they are worth; but I wish to learn more on this subject, for it is very certain that green will yield more than yellow wheat, and, if rolling is a remedy, it is certainly a very cheap and plain one. If I can induce my neighbor to have a part of his field rolled, I will do it. If wheat turns yellow here from the same cause as in England, it is reasonable to suppose that the same treatment will cure it; but who knows? I do not. MYRON HURLBUT.

*Arkport, Steuben Co., N. Y., May 6, 1858.*

Our esteemed correspondent, JOHN JOHNSTON, of Geneva, writing under date of May 10th, says:

A great calamity has befallen a good deal of the wheat in this section, it being totally destroyed by a worm in the roots—one of the best fields you saw when you were here. All the wheat on hard land is ruined, while that on the black land remains good. There are a few spots in my own crop that are killed outright, but the whole wont amount to an acre. I attribute my luck to my wheat not being near so forward last fall. I had a great loss by the same worm in 1844; I then attributed it to the Hessian fly. I had part Hessian fly, but I had also these worms, and now I am convinced that they were the great cause of the failure. That crop was very forward in the fall, similar to those now ruined.

The worm is clear, almost transparent, about one eighth of an inch in length, and quite plump; has several feet. In 1844, when the wheat was ripe, I found a great many inside the stalks, and very black and quite active; they are active now. On looking at the worm through a microscope, they appear to have four feet, two near each end. The fourteen acres on which I sowed salt last fall has none so far; but eleven acres in the same field, sown at the same time and apparently same soil, has some, even close to the furrow adjoining the salt.

AN EXTENSIVE FARMER.—JACOB CARROLL, of Texas, is the largest farmer in the United States. He owns 250,000 acres of land. His home plantation contains about 8,000 acres. Col. CARROLL has, on his immense ranges of pasture lands, about one thousand horses and mules, worth $50,000; one thousand head of cattle, worth $7,000; six hundred hogs, worth $2,000; three hundred Spanish mares, worth $15,000; fifty jennies, worth $2,000; fifteen jacks, worth $9,900; and five stallions, worth $2,500. His annual income from the sale of stock amounts to $10,000; and from the sales of cotton to $20,000.

## BEANS AS A FIELD CROP.

Though our last crop of beans brought us only 82 cents per bushel, and the prospect is not flattering for any material increase another year, yet we shall plant more than double the number of acres this season, and believe we shall find it advantageous to do so. We will not undertake to go into any extended "reasons for the faith that is in us," but shall rather remark on their management and culture—a subject now receiving considerable attention among Western New York farmers.

The soil we have chosen, this year, is a gravelly loam, rather light, and of medium fertility. It has never been manured, and was last in wheat with clover following. There is a good sward now, mostly June grass, with but little clover. This we shall turn under early in June, immediately before planting. We regard the above as a favorable soil and condition for beans. Wet land retards the ripening and induces rust. Rich land produces a large growth of vines without corresponding product of fruit. Sward land is not apt to be weedy; and this is a consideration of importance.

It is advisable to plant beans early in June, though some varieties succeed tolerably when planted later. After plowing, harrow down smooth and fine. If a hand planter or hoes are to be used, mark out the rows two and one-half feet apart, and plant across, about fifteen inches apart in the rows. Give five beans to the hill, and do not cover too deeply—an inch and a half of mellow earth is sufficient. When drilled in, the machine should be regulatad to drop single beans about two inches apart—the rows the same distance as above.

Taken in season, most of the culture can be performed with the horse-hoe. If the land is full of weeds, however, the hand-hoe will need to be faithfully employed. Beans pay well for clean culture, as we have proved to our satisfaction, but they are apt to need hoeing in the most hurrying time with the farmer, unless care is taken to select a soil not infested with weeds. It should be remembered that it is very injurious to work among them when wet so that dirt will adhere to the leaves.

Beans, to be profitable, must ripen evenly and well, and be harvested and cured in good order. Hence, we should plant early enough to guard against autumn frosts, and that the whole crop may ripen; for a few frosted beans mixed with the rest, keep them damp, and injure their sale and value. Wet weather, when the beans are fit to pull, sometimes ruins the crop, and almost always causes more or less waste and deterioration. Hence particular care should be taken to harvest as soon as ripe, and to thresh and dry thoroughly as soon as the straw becomes fairly cured.

In dry weather, the work of harvesting is simple and easy. Pull and throw into small heaps or rows to dry. The proper time to harvest is when all the pods turn yellow, and they should do this nearly at the same time. If the season is rainy, the beans must be housed at once, spreading them in the barn on scaffolds, and in every available space, until cured. Or they may be stacked in small stacks around stakes in the field. Place straw under the stack; do not make it over two feet in diameter, and with the roots in the center. So treated, they will stand considerable rain. Ours cured well last year in such stacks.

The best variety, as regard yield, early and even ripening, and quality, we have yet tried, is the "medium" bean. The *White Kidney* does not mature as early or ripen as evenly. The *Mountain Cranberry* we shall experiment upon the present season.

One reason why we shall continue the culture of beans is that we may have the *straw to feed our sheep*. We believe that one feeding a day of bean straw, with others of oat straw and hay, will bring sheep through the winter better than hay alone. For two winters we have given it some trial, and our flock kept in better condition on the food above named than when we had only hay to give them. But we will not extend our remarks at greater length, though the subject is far from becoming exhausted.

J. H. B.

## PASTURING SHEEP IN ORCHARDS.

The effect of pasturing sheep in orchards, both on the trees and the animals, is of some interest to those who keep sheep and have orchards which it is desirable to keep in grass rather than in other crops. A good turf is so much nicer to pick and sort apples upon, to speak of no other advantage, that we would like to keep orchards always in grass, could we do so profitably. Unless the trees are altogether *too high*, one can not well pasture horses or cows in an orchard; and if we could, these animals do not secure that close, clean sward, desired. Sheep, too, are said to enrich the soil upon which they feed, as well as to improve the land by the destruction of coarse and noxious vegetation.

But we will mention some results of the practice. Some years since, in answer to our inquiry through an agricultural journal, one farmer stated that he had pastured an orchard with sheep for several years. When he first turned them in, there was so little growth that he could not cut a graft from the orchard, there being no recent growth of sufficient length and thrift to furnish scions. In three years time the trees improved materially, making from a foot to eighteen inches of new wood every year. Another reported that sheep pastured in an orchard for two or three years, made great improvement in the fruit. Neither spoke of any injurious effect on the flock.

We have pastured sheep in an old orchard, more or less, for two years past, and to its manifest improvement. The grass is better than before, and the trees have a more thrifty look. As to the flock, they have done better than usual. This we attribute in part to changing them from pasture to pasture, frequently, and to the liking they have for their orchard pasture, especially in the hot season.

Orchards often suffer from the want of grazing. They get overrun with weeds and briars, as they will not when sheep are kept in them a portion of the time.

When the fruit begins to fall in any amount, we turn off the sheep and put on the pigs and calves. These remain until the apples are about ripe; then the orchard is cleared entirely, until the fruit is cared for. The sheep are afterward allowed to return, but not to remain to eat the grass down too closely. We rather save a good bite over for spring—or rather save it that the grass may be earlier and better in spring.

B.

*Niagara Co., N. Y., May*, 1858.

### THE SUBJECTS FOR PRIZE ESSAYS.

The following article briefly alluding to some of the subjects which have been suggested for Prize Essays, will be read with interest:

MESSRS. EDITORS.—All I know on the several subjects which you mention shall here be given.

Never raised a hop for market.

Best harrow I ever used was a Geddes harrow. I have tried several different harrows lately, because I have borrowed all the same kind—the square hinged harrow, teeth round on what should be the point, and usually cultivating the ground to the depth of one to two inches. My land has some stone. It is so much work to raise that part of the drag to which the team is attached to clear it of stone, that I don't do it, and my men wont. (We all pretend to.) A harrow should go as deep as a plow, and we fail wonderfully in the use of them, because we are not willing to put another team to draw a good one.

My sheep never had bean straw but once; then they broke into the field and consumed the crop. Did not see any particular effect on the *sheep*.

On stacking and feeding out straw—no *experiment*—of course not; but I guess straw is better worth saving than farmers usually imagine. My loss in stacking straw has been in not keeping the middle of the stack sufficiently full and well trodden. Stacks are built in a hurry; the weight is mostly in the centre, and when it settles it leaves the stack inclined to *take* water instead of shedding. The best place to stack is in a straw-barn, or to put the straw back in the place it came from, which, latter can be done at small expense. Feed it plentifully in racks, with grain besides, and clean the racks at every foddering.

A farm-house cellar should be high enough to allow the swinging of the cleaver in cutting up pork; cement bottom; double outside doors and double windows; the bottom smoothed with a straight edge, and a channel left around the outside, to carry away water which may get in, to the drain.

Never colored any butter excepting by feeding my cows with rich food.

Barn-yards should be warm and dry.

Should milk my cows twice a day, if they give much milk, because—because—I have always been in the habit of it—as was my father before me.

One of my neighbors told me that by bandaging and covering the cheese with cloth, the flies did not trouble them; but *I don't know*. Save my cheese by eating them.

No man can keep stock profitably without shelter, and certainly not as a christian.

I have cut corn stalks with Burrall's cutting box, (sickle edge to the knives,) by horse power, and the well cured stalks were eaten clean, and the stock did well; but poor stalks might as well be fed whole, excepting they are inconvenient to draw out, spread, and plow under. Best time in the winter; best place in the stable; best way, in a manger.

Never tried about the value of milk churned as compared with the churning of cream.

Did not know there was any poison sumac, and glad there is one weed that is new to me.

It would be impracticable for me to adopt the ten hour system, and imprudent.

Don't know about taking off *all* the stone, but don't think any of my land has been injured as yet, and I have picked a "power" of them.

It would not pay me to cook the feed for my stock, I *guess*. I hate a mule, and like a horse, which would decide which I would raise. I doubt whether mules are more profitable than oxen.

Farmers should adorn their homes before they become weathy, if they ever intend to do it. Make home pleasant, and you have lived to some purpose. Beautify with white wash, and hop-vines, and healthy children; afterwards with paint, and greenhouses, and statuary, and fountains. By the by, one of my neighbors has a fountain through which the water rises in beautiful jets, and I must confess to a little pride in it myself, that it is in my town. It is refining and civilizing in its effects.—How may it be done? By taking a little time that you never will miss, and doing *what* your wife want you to, and *when* she wants it.

Six months in the year is as long as my cattle want to be in the stable. I *fancy* it does them good to get out; but I don't *know* anything about it.

It is desirable to have as much stock of all kinds as you can keep well. Farmers should not have all their eggs in one basket.

Have a house within your means, and barns and sheds enough to hold all you raise, to stable all your cattle, and shelter all your sheep and colts.

You want *good* tools, and plenty of them. I have tried this. I have owned plenty and good ones, and I have borrowed. I am glad that I have *tried* one thing.

Make fruit stealing something more than *trespass;* put a man in jail or prison for it, and you have done something to encourage fruit growing. A better and more efficacious way would be to teach children not to steal.

From all that I have read about transplanting, I should think either spring or fall, whichever time you had most leisure *to do it well.*

The dollar book I will furnish *you* when you call for it at my house, provided yov read this letter all through.

I told you I was ditching some. By Thursday I shall have completed my thousand rods of ditch, or thereabouts, this spring. It is doing a great work for my field—ditches average about 40 ft. apart, 2½ ft. deep. Get my tile in Rochester, and bring them up by railroad. SAML. L. FULLER.

*Conesus Centre, N Y. May* 1858.

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PREPARING FIRE WOOD IN THE FALL.—Mr. B., in his "suggested items, No. 19," says: "Get up your wood in the winter, enough to last a year; saw and split it in the spring." For many, this advice is very good; but for my part, I prefer getting my wood in the summer, or early in the fall, and for this reason, that I can gather a great deal of good wood at that time which I can not get at in the winter; and then all I gather is dry, and by this practice my farm is cleared up of all roots and chunks, and moreover, chopping, sawing, and splitting, is saved, and you have wood that can easily be kindled on a cold morning. Mr. B.'s plan is good where wood is plenty, and where green wood is relied on. S. K.—*Wryckman's Corners, C. W., April,* 1858.

## THE MANAGEMENT OF PERMANENT GRASS LAND.

Our two best grasses for permanent pasture are Kentucky blue grass and herds grass or red top. Limestone soils are best for the blue grass, and those called freestone will pay best in herds grass. Where the climate is not too hot, clover and timothy will prosper in either kind of soil. The process should be the same on all soils, but should be varied according to the natural friability or compactness of the surface. To get a stand of grass, make the surface compact, and keep it so. In open fields, the land may be sowed in rye *early in the fall.* Then sow two gallons of timothy seed per acre, and harrow and roll until the surface is well packed. Let your cattle and horses graze and *trample this pasture well,* till spring begins to open. Then (in limestone land) sow per acre four lbs. blue grass seed and ten lbs. red clover seed, on the firm surface; but if the surface be not firm, roll it till it is. In freestone lands, the blue grass should be omitted, and herds grass sowed in its stead, at the rate of one bushel per acre.

The lot should now be allowed to grow till near harvest, when you may turn in your stock to graze it down, or harvest the rye and graze it afterwards. In either event, stock must not be allowed to remain and graze close enough to expose the roots of the young grass to the hot sun. From this time the lot must be allowed to grow up till nearly the time for frost; and then the more it is grazed and tramped, till the beginning of the next spring, the better.

After your grass is one year old, the system should be the same every year. You are to let nothing touch the grass from the earliest dawn of spring, till it is *about to make seed.* Then it must be grazed off rapidly, so as not to allow the seed to mature, because this would exhaust the roots, and make the grass puny for a whole year afterwards. Having thus pastured down your grass at the right time, take off the stock till it grows up again.—You may turn on, and graze it down as often as the season will allow it to produce a luxuriant crop. During hot weather, never graze so closely as to admit the hot sun to the roots of the grass; and during the fall and winter, graze it closely, and allow it to be completely and heavily tramped by stock till the beginning of spring. Feed your stalk fodder, millet, and other forage, to your cattle on the lot, in a new place every day, during the winter. Besides this, a top dressing of lime and barn manure every third year, will further improve the pasture. Any weeds, briars, or bushes, not destroyed by the stock, should be cut down with a scythe during the summer.

The more cross fences you can afford to have, the more luxuriant will be your grass, because this will allow the grazing of all lots in rapid rotation, so as not to bruise or wound the grass long at a time, in any one lot. And let it be impressed, that to keep your stock constantly *off,* or constantly *on,* any one lot, would alike ruin it. But if you desire a winter pasture, (especially of blue grass, which withstands cold weather well,) you may, without injury, set apart a lot for winter, after having grazed off the seed stalks in the spring as before directed. This lot should then be grazed no more till in the winter after all other lots have been fed completely down.

In this system, the clover and timothy are fore runners, in the one case, for the blue grass, and in the other, for the herds grass. They will take immediate possession of the soil, afford pasture, keep down weeds, and then give way as the other grasses form a sod. F. H. JORDON, M. D.

*Rome, Smith Co., Tenn.*

## LOOK TO THE COUCH GRASS.

The white runner, quick, or quack grass, deserves some notice from agriculturists—not for its worth, but from the fact that it has become a serious nuisence in many portions of the country, and is yearly increasing. Once fairly seated upon a farm, it is a laborious task to remove it. Some think differently, supposing it can be destroyed in one season by summer-fallowing, sowing to buckwheat, or fall plowing. Either of the above methods may reduce it, but will not entirely destroy it. Much mischief follows this supposition. It is allowed to spread, from the belief that it can be exterminated as if by magic, when ever it is desirable to do so. Let me say to such, it is a mistake. Years of labor will be necessary; and should every inch of tilable land be cleansed, it may still be lurking in fence corners, or under walls, and will need to be watched with jealous eye, as it will be creeping forward more or less every year. Where it has not made much progress, but may be found in small patches, take a dung fork and dig it out, and remove it to some place where it will not grow; and when plowing, small patches may be noticed, perhaps so small as to be thought little of; but now is the time;—stop the plow and pick it out, root and branch. A minute may do it now, but if you pass it by, it may require an hour or a day when observed again.—This is my method, and one that will not fail me without I get too lazy, or in some way fail to stoop to small things. D. LEATHERSOICH.

*Caledonia, Livingston Co., N. Y.*

The Way to have Good Roads.—Your correspondent from Adams' Basin gives us the secret of making good roads and keeping them so, when he says, "If a deep cut occurs, have it the duty of some one to fill it up directly." To accomplish this, let us pay our highway taxes in money, as we now pay other taxes, and have the money expended in the several districts by employing men on purpose. The present laws were good in the early settlement of the country, when every man felt a deep interest in the making of roads. The operation of the present tax is unequal. If each man was compelled to pay 40 cents per day, which would be cheaper than to work his tax fairly and honestly, we could have men to keep the roads in repair.

I hope we shall soon get No. 3 from M. H. It is a subject that will bear discussion. Saml. L. Fuller.—*Conesus Centre, N. Y., April,* 1858.

Cultivation of Corn.—When the corn comes up, harrow well; when large enough to plow, plow deeply and constantly, causing the roots to strike down until the time of shooting; then the cultivator must be used both ways. By the former deep plowing, the ground is left loose for the roots to strike out when the stalk requires the greatest nourishment. To make the longest and best filled ears, is what the farmers are seeking for.

### TIMOTHY—WHEN SHOULD IT BE CUT.

EDITORS GENESEE FARMER:—It seems to me a little remarkable that farmers can not agree as to the best period for cutting timothy, some insisting that it ought to be cut in the blossom, or as soon as it is cast; others, when the seed is mature. It was once thought that the agricultural chemists would settle matters of this kind to the satisfaction of all; now it is understood that their analyses must be received with a good deal of hesitation. When LEIBIG's works were published, many farmers were almost persuaded to believe that, with a sack of prepaired fertilizers in one hand, and a bushel of grain in the other, all barren places would yield abundant harvests. But these dreams have passed, and we are remitted to practical experiments in the field; so let us settle this matter among ourselves. I propose that you request twenty farmers to cut timothy in each stage, feed both kinds of hay, and report the result to you. An ounce of nutritive matter to the square foot makes a large difference, one way or the other, in twenty acres; and the stomachs of twenty live cattle, on this subject, are worth the analyses of forty chemises—not that the opinions of these gentlemen are entitled to great respect; they have thrown a flood of light around our pursuits and constrained science to dignify and adorn our profession. Let them ever be honored for having taught the holder of the plow to reason as he drives his teams over fields. BREVIX.

### POTATO EYES FOR SEED.

EDITORS GENESEE FARMER:—For the past six years I have experimented considerably in potato planting, and am convinced that most perfect crops of large potatoes will be produced from the eyes only, with a piece of the potato not larger than one's thumb nail. I think three eyes are enough to the hill; and if the hills are three and a half feet apart, the crop can be easily and perfectly cultivated with the shovel-plow alone, without the aid of the hand-hoe, though probably the harrow is best for the first dressing. A larger crop can be obtained by planting in drills, with one eye every eight inches; but in drills, more labor is necessary to cultivate thoroughly. I am not yet satisfied which are best for seed, large or small potatoes. So much depends on the season, that experiments, carefully conducted for a long series of years, would be necessary to give one accurate knowledge on this point.

It does not seem to make much difference how *dry* the eyes become before planting, and I am not sure but it will be found most economical to keep eyes for seed which have been *cut in the fall, and thoroughly dried;* I merely make the suggestion for others to try. I am inclined to the opinion that potatoes raised from such seed will be comparatively exempt from the rot. At any rate, let it be tried. I have never tried any *too dry to grow well and produce large potatoes*, although the sprouts, when first up, have a very slender, discouraging appearance. To those living where potatoes are worth a dollar per bushel, this may seem of some importance, while here, where they are worth but ten cents, men may laugh at the idea; yet it is of importance to all. C. BRACKETT.

*Rochester, Fulton Co., Ind., April, 1858.*

### A FEW THOUGHTS ON AGRICULTURE.

EDITORS GENESEE FARMER:—In making a *good farm* of *poor land*, a good deal of labor and skill is required. After the land is cleared of the incumbant wood, the next thing is to get off the stones. These should be taken off as soon as practicable, for they are a serious incumbrance, costing more to work over and around them than to remove them; besides, they do, if properly laid up, form fences almost as enduring as the soil itself. The land being cleaned of surface rubbish, the next thing is to see that no water stands upon or slowly filters through the soil, to the bottom of the slopes, carrying off a vast amount of needed heat, or turning sour and injuring or destroying the crops.—Unless your land will clear itself of water so as to be fit to work in twenty-four hours after a heavy rain, it needs underdraining. But this is a rather costly job, and should be well done, if done at all; otherwise it is money thrown away. So, unless you are abundantly supplied with the needful, do not try to do too much. But no man who is rich enough to own an acre of land, is so poor as not to be able to do something every year at draining. As it is a business that can be done at all seasons of the year when the ground is not frozen hard, so lay your plans as to invest every spare hour in digging ditches and laying drains; and if you have never seen it tried, you will be surprised to see the effect it will produce; and once fairly begun, you will not be likely to stop until the whole farm is drained. Manure is not worth half price on wet land.

After having the land well cleared, well fenced, and well drained, the next thing is to have it well manured. Nothing will come amiss that will decay. But no part of the farm labor needs a more thorough reform than the present method of making and saving manures, not more than one half as much manure is made the country through as might be. That which is made is not worth more than one half as much as it would be if properly taken care of. I keep my manure under cover, and prevent as far as possible, all fermentation, until it is put into the earth, where the escaping gases are caught and retained. I stable all my animals, thereby saving all the manure, instead of letting it be scattered over the farm to be washed away by the rains and and melted snows. I feed cut feed altogether, believing it pays well for the extra labor. Steam the feed and put a little bran or meal on it. By this means, straw, hay, cornstalks, and all, are eaten up entirely, there not being as much wasted in a week as in a single day where long feed is fed; and I may add, my animals keep in better condition on less food. G. C. LYMAN.

*Lynn, Susquehanna Co., Pa.*

EXPERIMENT IN FEEDING COOKED *vs.* RAW CORN.—I weighed two of my Chester county white sows. No. 1 weighed 392 lbs.; No. 2, 380. They were something over a year old, and of the same litter. I fed them 17 days. No. 1, on unground boiled corn, consumed 2 bushels and 21 quarts, and gained 36 lbs. No. 2, fed on unground raw corn, consumed 3 bushels and 13 lbs, and gained only 30 lbs. They were fed with thin slop (for drink) both alike. I purchased one of Hedge's steamers for cooking feed for stock, which answers a good purpose.—THOS. WOOD.—*Penningtonville, Chester Co., Pa.*

## FENCING.

EDITORS GENESEE FARMER:—Fencing is becoming an important subject to farmers; and to many it is serious difficulty, even now, to procure materials in sufficient quantities to fence their farms into convenient fields.

Hedges are ever foremost in our thoughts, as the future resource for permanent and ornamental fences; but the great difficulty, at present, is the want of a suitable plant, combining a variety of qualities, such as, we fear, no one plant will be found to possess. It should have the prickles of the Osage Orange, or Hawthorn, the hardihood of the Buckthorn, and, to relieve the monotony of a Canadian winter, the evergreen garment of the hemlock.

The Osage Orange, I think, will not thrive where the peach tree is so frequently killed as in Canada; the Hawthorn is about given up; the Native white thorn is little prized; and it now rests solely with the Buckthorn, which, though not pretty, is hardy and sure. The Cockspur and Washington thorns are frequently mentioned, but little known here.—The White Cedar makes a pretty ornamental hedge. I planted a few rods two years ago, which is getting quite thick. A year ago, I planted 40 rods with cedar and tamarack, which I have no doubt will do well.

Where stone is abundant and obstructs cultivation, the plan suggested in the May No. of the *Farmer*, may be adopted with profit; for it serves two purposes, that of clearing the the land, and building a permanent fence.

There are two kinds of fences which I can strongly recommend to the notice of farmers, for economy and durability. The first is described on page 35 of the *Farmer* for 1857, which is simply rail and toggle fence. I make it as follows: plow and shovel a ridge of land six feet wide and one foot high; then lay stones, a foot thick, for the rails to rest on in the centre of the ridge, and bank up to the bottom rail. Four rails or toggles then well staked and ridered make a high fence, with about half the number of rails used in an ordinary zig zag fence, half the land to set it on, and much less time to make it. The stakes being set within the ridge, are not liable to heave with frost. The other method appeared in the *Canadian Agriculturist* last year, and, with a few alterations, is made as follows: Plow a straight furrow six inches deep; every sixteen feet, put in a small post one foot lower than the furrow; ram them tight and straight in a line; then saw them off four and a half feet above the surface; next, nail strips of board, six inches wide on top of the posts, two nails in each end. Then take pickets, split as near as possible four inches wide, and two inches thick, and five feet long; place them in the furrow, three, four, or five inches apart, and drive a nail through the cap board into the top of each picket; fill up the furrow and tramp it hard; then plow two or three furrows on each side, to bank up and form a ditch a foot deep, which will prevent heaving by frost.—Cover the bank with sward or seed it down, and the fence is finished. This makes the cheapest, neatest, and altogether the best wooden fence I know of.

SIGMA.

*Woodstock, C. W.*

## CLEARING BUSH LAND.

EDITORS GENESEE FARMER:—In autumn, before the snow falls, cut up all fallen timbers and also cut down all small timbers, (say six or eight inches through,) and be sure to cut them low enough to allow the harrow to pass over them. Place the brush wood parallel with as little cross work as possible. Then go through felling the largest of the trees,—if possible, east and west, north and south, as the land will best allow, leaving the trunks of them whole as a foundation for rolling heaps. Then you are ready for a regular seige of chopping, always falling the medium trees on the foundations previously prepared, cutting their trunks from twelve to fourteen feet in length. By falling trees across the large trunks, it is often advantagous to leave two or three lengths, and swing them around parallel with the main portion. By so doing, they will some times, burn at the time of firning the brush, which is generally done in June.

It is worthy of remark that hemlock or pine timbers can be burned away as well by one heap and a half, if used properly, as by three heaps if not used properly. First make a heap that will burn, leaving three or four logs laying near, to roll in as the fire gets low; and by strict attention a hemlock or a pine can be burned through with the greatest ease. The branding up is simple and easy, after the heart is broken.

T. J. CREWSON.

*Morgantown, C. W.*

## CHEWED CORN STALKS AND MAD ITCH.

EDITORS GENESEE FARMER:—The editor of the *Southern Planter* says that several instances have been brought to his notice "where cattle have died from eating corn stalks which have been chewed by hogs." It has happened *invariably*, as far as my personal experience goes, that the *mad itch* occurred among cattle fed exclusively on corn stalks. Though I have never made any dissections of cattle which had died from this cause, yet I am told by those who have, that "the stomachs are filled with the indigestible fibrous parts of the stalks, in *wads, dry and hard.*"

I can conceive that any kind of dry food—such as *over ripe* timothy, red top, clover, or prairie grasses—might induce the same or a similar condition of things; and that plenty of salt, *good water*, and an occasional change of food, and *dry* sleeping places, would ever keep cattle free from disease of this or any other character.

Stock well cared for are gentle, contented, tractable; but shut your cattle and hogs together in a filthy yard, feed on corn fodder alone, give no salt, water semi-occasionally, and you will have specimens of the "*mens insana in corpore insano*" in the shape of *mad* itch or other kindred disease, and will help glut the market with bad upper, sole, and harness leather.

C. BRACKETT.

*Rochester, Ind., April, 1858.*

CHIP MANURE.—Your correspondent P. T. asks to know how chip manure may be disposed of to the best advantage. It is the best of manures for the garden, on heavy clay, that I ever tried, making the ground loose, and lasting for many years, and is good for all crops commonly raised in the garden. A YOUNG FARMER.—*Vernon, Ind.*

## HARROWS AND HARROWING.

The harrow is an indispensable implement in the cultivation of the soil, and next to the plow in its importance to the farmer. There are many forms given in its construction; some of these we shall notice and describe.

The Scotch or Square Harrow, when made of light timber and furnished with small and sharp teeth, is one of the most effectual for the pulverization of smooth land. Fig 1. sufficiently explains its arrangement and construction.

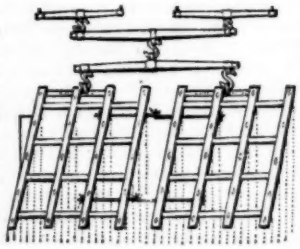


Fig. 1.

Another form of Square Harrow in common use is shown in fig. 2. It requires less gearing, and accommodates itself to uneven land more perfectly than the former. Sometimes thirty, and sometimes thirty-six teeth are used.

The Geddes Harrow (fig. 3) is said by good judges to be the best in use. Its wedge-like form enables it to pass obstructions easily, its motion is more even and steady, and consequently easier for the team. An improvement in the draft is effected by attaching a chain to staples on each side, as far back as the second tooth. This prevents the harrow rising in the middle, as it will do if the traces are as short as they should be for easy draught. The timbers of this harrow may be of 3 by 4-inch scantling, though for the square harrow 3 by 3-inch is sufficiently heavy. Three-quarter inch teeth are large enough for any purpose. They should be pointed with steel, and kept sharp. The cost is somewhat increased, but the improvement is real, to have a shoulder underneath, and a nut screwing on at the top, as the teeth are then firm and can not drop out. A harrow made of good timber, with a good coat of paint, renewed as often as necessary, will last a long time.

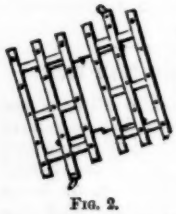


Fig. 2.

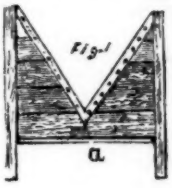
Harrows with wooden teeth are in common use among European farmers, and nowhere is harrowing better understood or performed than in the old countries.—We may, and no doubt do, have as good implements; but we do not use them as thoroughly—or as many times in succession. We are "a go-ahead people," but we are learning daily that thorough work is the work which pays. In the use of the harrow, the work may be facilitated by keeping the implement clear of sods and stones, and the speed of the team should be increased above that when employed at the plow. A team will soon learn to walk just on the edge of the previously harrowed ground, and we would always give a lap of at least half the width of the implement. If we wished to go over the field three or four times, we would go each time in a different direction—lengthwise the furrow, crosswise, and diagonally. In this way, the pulverization would be the more effectually performed. "Serpentine harrowing" is some times practiced in Germany—the team is driven across each land and back, making a line resembling the letter S, or two figures of 8 place one under the other.

Fig. 3.

The action of the harrow tends to consolidate as well as to pulverize the soil; and after plowing, it needs something of the kind to fit it for the best growth of plants. This is best performed with a good harrow—a poor one injures rather than benefits the soil. Let us look to this branch of practical tillage, that we perform it well. J. H. B.

## RACK FOR FEEDING CATTLE.

"A cheap and strong rack for feeding cattle," such as inquired after by Mr. Linney, of Iowa, may be made of boards and scantling, six feet square, as shown in figure 1, exhibiting one side of the same. The posts are four inches square; the horizontal scantling, *a*, two by four inches. A bottom may be laid in upon this, or it may be filled up with straw to this level. Each side is exactly alike; and when strongly nailed together, they will last for many years.




Another form, on the same principle, may be described as follows: The posts, four by four scantling; the lower board, from twenty to twenty-four inches wide; the braces and upper board, ten inches wide; of hard wood, and nailed together firmly with large wrought nails. Six feet square is sufficiently large for four head of cattle to eat from without quarreling, or being able to reach each other. Fig. 2 shows one side only, as in the first instance.

These racks are in successful use by many farmers, and will save their cost in fodder in a single winter. J. H.

*Royalton, N. Y., May, 1858.*

India Rubber Taps on Boots During Haying.—If you think this worthy a place in your highly esteemed journal, and will give it room, I am certain you will receive the thanks of many a luckless wight who has slipped "full oft" from his hay rack while pitching off his load. It is well known by all hay makers, that the soles of boots or shoes, in the hot dry weather during haying, become smooth as glass, and full as uncertain for a foothold. Now to remedy this evil, I take the soles from a pair of cast-off rubber shoes, and tack them to the bottoms of my boots. Since this has been my practice, I have at all times known where to find my feet when I put them down. D.—*Gates.*

## FEEDING CALVES.

EDITORS GENESEE FARMER:—I propose to give you my plan for feeding calves. Now the usual practice among farmers is to put them in a lot together, say from six to twelve, or more, if he raises more, and when the feeding time comes, to take all the boys he can muster, each with a beach gad and himself with an old pail for the calves to drink from. And now commences the war with rods, and the poor calves are severely chastised for acting from instinct to obtain their share of milk, which, under such circumstances, must be unequally divided, as, many times, two or more calves will have their heads in the pail at the same time; and at length the farmer and the boys escape from the lot, after receiving many a friendly bunt, with their pants sadly besmeared with the calves' saliva.

Now my object is to propose a better plan, which is this: In the first place, set three posts or stakes in the ground in a straight line, then nail a board, eighteen inches wide and fourteen feet long, to the bottom of the stakes; then nail another board to the stakes, six inches wide, raising the top board so as to leave one foot space between the two boards. This space I divide into six equal parts by nailing short pieces up and down from the top to the bottom, leaving six openings ten inches wide, through which the calves will put their heads to drink. I then slip a rod or stanchion down through the centre of this opening. By having the space thus large, the calf will more readily put his head through. The rod may then be slipped down, securing his head on either side of the rod. My troughs I make from a stick of soft timber, fourteen feet long, 6 by 7, in which I make 6 troughs to correspond with the openings as above. This fixture may be placed in the corner of the lot where the calves run, or, if more convenient, may be boarded on three other sides, making an enclosure fourteen feet square, into which I take my milk to feed them, the trough of course being on the inside. The calves will learn, by managing them carefully a few times, to come each to his place readily.—One lad will feed a lot of calves in this way quicker and easier than four will in the way first described.

Calves should have plenty of new milk the first month, after which I commence adding a little sour, and increase the proportion gradually, so that by the time they are two months old, they will drink sour and even lobbered milk like pigs. Calves should be kept in the barn, and fed on a little early cut hay or rowen until the grass starts; for if they are stunted the first month, they will never outgrow it. I have in the above, described a fixture for feeding six calves; the troughs may be increased according to the number to be fed.

*Jackson, Pa.* REUBEN HARRIS.

CORN TRAVEL.—Emery's *Journal of Agriculture* says: A knight of the pencil—a farmer—estimates that it requires sixteen hundred miles travel in the culture of a hundred acres of corn, as ordinarily cultivated in the west. He claims that machinery ought to be invented, tools manufactured, by which this travel may be reduced to four hundred miles; says it can be done with the same power now used. We may cultivate two rows instead of one, and do it as well, at once crossing the field.

## A BOY ON THE MOWING MACHINE QUESTION.

EDITORS GENESEE FARMER:—I am but a boy of fifteen, and take the liberty to write my views of a subject which is, or seems to be, in the minds of many farmers, veiled in uncertainty.

In the April number of your paper is an article, written by Mr. E. A. BUNDY, on "Cutting Grass or Grain by Machinery." The gentleman seems to think that the mowing and reaping machines ought to be entirely discarded for the old-fashioned scythe and sickle; and to prove this, he gives as an example the essay of Mr. DAVID STREET in the January number. He says Mr. STREET pretends to cut only six acres in two days. If so, Mr. STREET is entirely behind the times. My father has cut twelve acres in one day, with his Ketchum's Mower, and it did not get wet either, being drawn into the barn before such a catastrophe could happen.

My father says that but very few laborers can be hired that will cut more than an acre of grass in a day, and that the machine will do the work of ten men. Many of the men hired for haying and harvesting take advantage of the farmer, by "the scarcity of hands," to charge exhorbitantly; and this is in a great measure obviated by the mower.

If Mr. BUNDY's calculations beat "our Ohio" friend's, I rather think that mine beat his. We had seventy acres of wheat to cut, which was done in one week (minus one day and a half) by Ketchum's Mower and Reaper combined. When a rain comes up, it generally finds us prepared—the hay all in and the "mower under cover." My father says that the machine saved its cost in one year.

Last year, we cut seventy acres of wheat and fifty-five acres of hay. Of these, twenty acres were cut with a scythe, and it cost as much to cut the twenty acres as all the rest of the wheat and hay put together; and I would say to Mr. BUNDY, that if he wishes to see a mowing machine work, let him come out here, to old Lenawee county, in the old Peninsular State, and see the hay cut by a machine as fast as ten men could cut it with scythes, even in New York. When the machine is in operation, all that is to be seen of it is a big wheel and the driver's seat. WM. ALEXANDER.

*Tecumseh, Lenawee County, Mich., April, 1858.*

CULTIVATION OF SWEET POTATOES.—Our esteemed friend, FRANK G. RUFFIN, editor of the *Southern Planter*, published at Richmond, Va., in a private letter says:

"You are altogether wrong, (excuse me,) as to the mode of getting the shoots—'draws' we call them or slips—of the sweet potato. Never 'take up the tubers,' but press your hand on the ground that covers them, so as not to unsettle them too much in the bed, and draw the slip from the ground between the fingers spread open for that purpose. Never mind saving 'the side roots.' The slip will grow off as a cutting would. Indeed, in South Carolina the best crop is made from cuttings *of* cuttings of 'draws,' being in the third generation from the 'mother potato,' as we call it. By leaving the potato in the ground, you may get several drawings from the tuber. But you will never raise a sweet potato in New York that will be better flavored than a good pumpkin. A southern sand, not less than a southern sun, is what it wants.

### DO WE STIR THE SOIL TOO MUCH?

Messrs. Editors:—I notice what Doct. Lee says in the *Genesee Farmer*, page 110, and dissent from the Doctor's opinion. I beg leave to give you my views on that subject. Mr. E. Billinsley and the Doctor seem to think that American farmers give their land too much plowing: it may be so in Georgia, the now residence of the Doctor, or in Illinois, the home of Mr. Billinsley, but it is not so in the county of Seneca, State of New York. I get my best crops of wheat when I plow my fallow four times during summer, and use the large wheel cultivator at least twice; and the better I pulverize my fallow, the better my wheat crop.

The Doctor says: "If a farmer turns over his manure heaps several times during the summer and autumn, and permits rain and sunshine to fall upon them, the organic matter will rapidly ferment, rot, and dissolve and disappear, and in a few years the manure, if thus treated, will be dissipated." *This I deny.* There is not one year in twenty that we get too much rain on our manure heaps, if properly heaped in spring, while there is ten years in twenty that they would be greatly benefitted by one or two turnings; and if the Doctor will make a heap of 150 loads, or as much more as he chooses, and turn it for two years, I have no doubt he will find it produce a much better crop than manure that has not been turned. Beside, manure, in my opinion, must be *fermented* to make it valuable for the first crop. Take *fresh* manure from the yard and apply it to spring crops, and *with me* it does no good with that crop. But if farmers will not experiment, they can not find out such things; theory or science will never teach them. Yet on *sandy or sharp gravelly soils* it may be different; indeed, theory would teach me it would be so, as those soils consume manure much more rapidly than clayey soils like mine; and in that case no man can dictate to another how to treat his manure, or soils so far distant as Georgia or Illinois. But one thing I firmly believe—that manure requires a good deal of rain after it is heaped, and turning beside; it also requires age to make it most efficient in raising crops on my land.

I am aware that both science and theory will scoff at some of these assertions, but I cannot help that; when I put pen to paper, I must write what I believe I have proved beyond any doubt in my own mind.

JOHN JOHNSTON.

*Near Geneva, May*, 1858.

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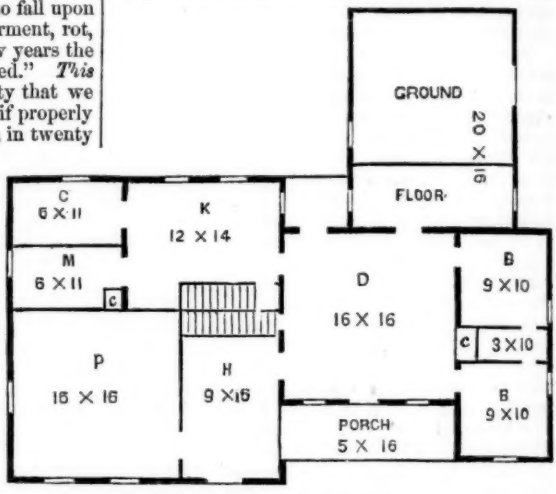
Drain Tiles—How Does Water get into them?—If the soil contains water and the drain tiles have an outlet, "M. P.," of Ind., will find it difficult to keep the water from getting into the tile; though on a heavy clay, if the soil taken from the bottom of the drain was returned and puddled in, it *might* have that effect. The pores of the tile, to say nothing of the crevices between the joints, furnish abundant room for the admission of water. On clays, like those mentioned above, it is usual to fill in first the earth taken from the surface, as that is of a more porous character. P. M.—*Royalton, Niagara County, N. Y.*

### PLAN OF A FARM-HOUSE.

Messrs. Editors:—I send you a rough sketch of our house. The main body is 21 by 28 feet, 1½ stories high; the lower rooms 9 feet high, the upper 8 feet, and all square corners, or no slopes to fit the roof. The sills are 8 by 10 inches, of white oak or red beech; the corner posts 5 inches square; the window and door studs 5 by 4 inches, the others 5 by 2 inches, and they all, where practicable, extend from the sill to the plates or rafters. The joists of the second floor extend from side to side of the building, and are secured to the studs. The plates are to match the 5 inch studs, and the joists rest on top of them and are secured to the plates and rafters too. This is in the main body. The studs in the wing are about 12 feet long, or the plates are about



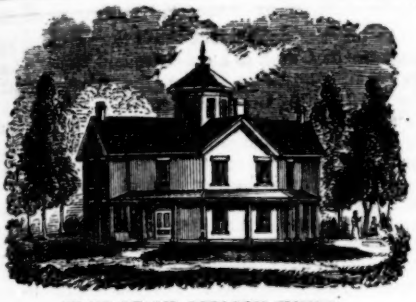

GROUND PLAN OF A FARM-HOUSE.

2½ feet above the chamber floor, and the roof slants on to the main roof. The studs to the wood-house are about 8 feet long, and the roof runs on to the roof of the wing, with an extension over the passage between the kitchen or cook-room, and wood-house. The sides of the whole are covered with 1½ inch hemlock boards, nailed on diagonally, or bracing, and then clapboarded and finished well.

Description of Ground Plan.—Porch, 5 feet wide; D, dining-room; H, hall; P, parlor; K, kitchen; C, closet; M, milk-room; B, bed-rooms, and a clothes-press between, 3 by 10 feet, with a chimney (c,) so made that a stove-pipe may enter it from the dining-room without having the pipe endanger the house. In the wood-house we have a floor about 8 feet wide, on the same level with the other floors. The main door for wood has no sill except a stone one, not liable to rot. There are two stairways, one from the dining-room and the other from the kitchen, and under the kitchen stairs are the cellar stairs. *c* is the chimney for parlor and kitchen, and suits the chambers as well as below. The cellar is under the whole house except the wood-house, and 8 feet deep. The whole cost throughout, not including board, about $1,200.

If any of your readers desire any further information, I will cheerfully give it.

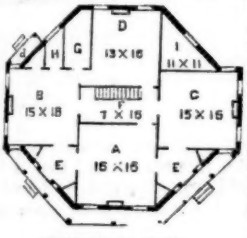
*Little Genesee, N. Y., March*, 1858. D. EDWARDS.



## PLAN OF AN OCTAGON HOUSE.

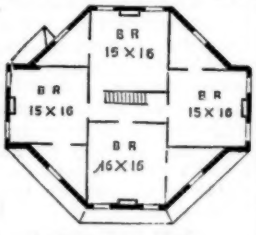
MESSRS. EDITORS:—The subject of farm-houses is too much neglected by people, as a matter of study. Attempting to build a house without considering what are the requisites necessary in a convenient dwelling, is nearly as bad as to attempt to build without the aid of carpenter and joiner. I think this a matter of much importance to the farming community, and send you a few hints with a plan of a house, in hopes by so doing to induce some abler hand to take up the subject and do it justice.

The outside form of a house is generally the first thing to be considered, not that it is of most importance, but because it depends in a great degree on the form whether it contains the room necessary to be divided economically, and at the same time present a uniform outside appearance. I give in the accompanying plan of an Octagon House, a slight projection of five feet on each side, in order to improve the outside appearance, and make the rooms of the proper shape inside, (which is the most difficult thing to overcome in arranging octagon plans;) and by placing a veranda around the front, secure an unbroken line on the first story. The roof is composed of four gables, placed at right angles, with a dome in the centre to light the staircase hall, which I think an improvement on an eight-sided roof.




FIRST FLOOR PLAN.

The first story should be ten feet high in the clear, and the second eight feet. The cellar is divided into four rooms, as I think it is better to have separate apartments for milk, fruit, vegetables, &c. The main floor is arranged as follows: A. is the dining-room; B. the kitchen; C. parlor, D. nursery or bed-room; E. entries; F. hall; G. bath-room; H. pantry; J. closets; d. doors. The second story is divided into four large bed-rooms, with a large closet to each. The cellar may be a perfect octagon, and the projections underpinned, if preferred, which will be less expensive.




SECOND FLOOR PLAN.

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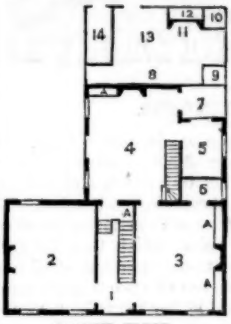
## PLAN OF A FARM-HOUSE.

EDITORS GENESEE FARMER:—The house of which the following is a description was built in 1854, of brick, by the direction of the subscriber, whose wish was to combine plainness, convenience, utility and durability together, with the intention of not letting the cost exceed $2000.

By a reference to the diagram, it will be seen that every room can be entered without passing through another; and as I doubt not some will object to the smallness of the kitchen, let me observe that its convenience to the dining-room is such, that the table is always set in the latter, the kitchen being used only as a cooking room. For a large family, its size should be extended.



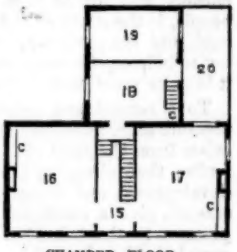

GROUND FLOOR.

GROUND FLOOR.—1, entrance hall, 7 by 19; 2, parlor, 16½ by 19; 3, family bed-room, 16½ by 19; 4, dining room, 16 by 20; 5, kitchen, 8 by 10; 6, bath-room, 4 by 8; 7, porch, 6 by 8; 8, passage; 9, pump; 10, oven; 11, fire-place; 12, ash-house; 13, wood-house; 14, coal-house.

CHAMBER FLOOR.—15, passage; 16, 17, front bed-rooms; 18, 19, back bed-rooms; 20, upper porch, 8 by 20.

A, A, cupboards; C, clothes-presses.

The house fronts the west, which throws the porches and kitchen on the sunny side. The pump, oven, &c., are under a lean-to shed, accessible without stepping from under shelter. A door in the kitchen opens on the cellar steps, which run down under those in the dining-room.—The cellar extends under the front of the house, and is divided into two rooms, and paved with brick.




CHAMBER FLOOR.

By keeping an account as the building progressed, I am able to state the cost, which was a trifle over $1,700, counting my own labor, boarding hands, and all except the stone in the quarry and the oak timber in the woods. The pine lumber, of which all the doors, door and window frames, board partitions, and some of the floors, are made, was hauled from the Ohio river, fourteen miles distant.

Although this may not be as grand a mansion as some would want, yet the subscriber thinks that for real service and comfort it is superior to many which pass for good homes. GEO. CATTELL.—*Near Harrisville, Harrison Co., Ohio.*

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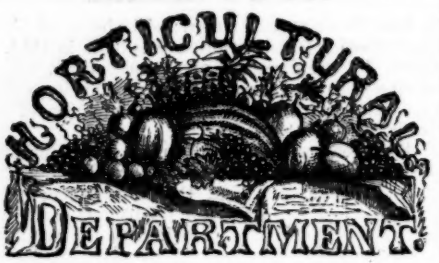
RACK FOR SHEEP.—I would say in answer to EDWARD LINNEY'S inquiry concerning racks for feeding cattle, that the one represented in the December No. of the *Farmer* for 1857, is a very good one. The size can be varied according to the stock. J. O. DAWES.—*LeRaysville, May, 1858.*




## CHEAP LUXURIES.

There are not a few persons in every circle, and within the range of every one's observation, who esteem an article according to its cost, and not according to its intrinsic excellence and value. To such minds, a rare and expensive article of dress or of curiosity, possesses a value which to other persons seems quite disproportionate and out of all reason: they cannot see the use of spending so much upon that which seems no better than the common articles, except that it is rare or costly. Many of those articles commonly called *luxuries* fall within this class, and are esteemed simply because they are not common; but there also various luxuries, properly so called, which have an intrinsic excellence, as well as a value arising from scarcity, and the difficulty of production, which always has and always will recommend them to public notice and favor.

Among this latter class of luxuries are many of the products of the fruit, the flower and the vegetable garden. How to produce these luxuries cheaply, and how to place them in the hands of the people, is the study of the pomologist, the nurseryman, and the gardener. In a few words, we shall try to help on the cause, and endeavor to show that it is quite practicable to have some *cheap luxuries.*

To a refined and cultivated taste, there is no pleasure more unalloyed and simple than that which arises from the sight of beautiful flowers, trees and fruits; their changing forms and colors, as growth, development and decay accompany the changing seasons, give a continually new and fresh sense of pleasure to the beholder. The heart from which *envy* is banished, receives daily new and rich measures of delight, in the sight of all the lovely and beautiful flowers and fruits which a kind Providence, assisting the labors of the cultivator, has spread around us, and thus enjoys the luxuries of every man's garden, without the toil of the owner —a rich inheritance known to some, but not to the selfish and sensual. These may be said to be the cheapest luxuries, but they are, we fear, the most rare.

An abundant supply of ripe and fresh fruits is doubtless one of the greatest luxuries which can be enjoyed, and one which in these days is usually considered very expensive, and especially so if the small and delicious fruits and berries are added to the list and used with daily freedom. No luxury is more cheerfully paid for, than perishable fruit of the best quality, by those who can afford it; and few persons can be found who would not buy if the prices are made moderate and the supply constant and in good condition. Secure these conditions, and the demand soon becomes great and steady.

Among the small fruits, the Strawberry has long held the first rank as a delicious and valuable market fruit—profitable to the grower, and eagerly sought after by the consumer, at high prices; but it is found on largely increasing the supply, that time is necessary to enlarge the market, and if a sudden and large increase of supply is thrown upon the market, a part is lost, or sold at prices which do not pay the grower. But let a steadily increasing amount of fine berries be sent into the market, and kept constantly on hand, and the demand steadily increases to meet the supply, by a law of trade well known and understood. Let this course be constantly pursued, and we may have in Rochester a market for Strawberries limited only by the distance to which they can be safely transported, and a supply for everybody, which will bring them within what may properly be called "cheap luxuries."

The same course will produce the same results with other perishable fruits, berries, &c. Only let there be a continually increased amount planted, and proper attention paid to the selection and propagation of the best and most valuable market varieties of all these perishable as well as durable fruits, and our great natural advantages will enable us to do a profitable trade and sell at reasonable prices.

Choice and delicious vegetables, melons, &c., will also follow the same laws, and be consumed in greatly increased amounts as soon as a regular supply has established the regular demand which will follow.

There is another sense in which we wish to speak of cheapening luxuries like these, and that is by improved methods of cultivation and by introducing better varieties; but cannot enter upon the subject here.

There is no good reason why the luxuries of the fruit garden should not be brought to the tables of even the very poor. In this city and county, there is scarcely an able-bodied laboring man or mechanic who has not more or less land in his possession, either owned by himself or rented for a year. The man who occupies a lot of a quarter of an acre in the city, usually plants a large share of it with potatoes, corn, and cabbage—all of which he can buy in the markets, of as good quality and in as good condition as he has them from his own lot, for a very small sum; indeed, he does not expect to raise more than a partial supply; but this same land, if well stocked with currants, gooseberries, raspberries and strawberries, would furnish him ten times the value in fruits, delicious, wholesome and seasonable, that he can gather from it in corn and potatoes. In fact, a skillful man—such as any one may become by devoting his spare hours to the subject—will sell from one-fourth of an acre, after supplying his family, more than enough to buy him a year's supply of potatoes and corn. From one-eighth of an acre, we have sold $100 worth of strawberries, at ten cents per quart. What man ever raises more than one-tenth of this value in potatoes or corn? This was a very large crop, but the laboring man who will attend carefully to it can far exceed this amount and value.

There is still another and a larger class of persons to whom the luxuries of the fruit garden are almost unknown: we mean the farmers. Even the read-

ers of the *Genesee Farmer* are many of them, perhaps the majority, in want of some of the cheapest luxuries in the whole world.

The farmer is too remote from markets to get a daily supply of perishable fruits, except from his own garden; there is no excuse, however, for not having an abundance from there. He has land in abundance; time enough, too. Although he usually thinks a day spent in following his plow over an acre of land intended for oats, well spent, if he can get in a crop from which he will realize a profit of perhaps five dollars, perhaps nothing, the same time and labor spent in procuring, planting and cultivating delicious garden fruits would give him five times the intrinsic value, and conduce greatly to the comfort of his wife and daughters, who have hard enough work to make his daily table comfortable, and cannot possibly make it what it should be, without those delicious fruits of the season which there is no substitute for. We have little patience to labor with the farmer in this region, and in these days, who allows his family and himself to go without these cheap luxuries, while he toils himself and sons to death on his field crops. It is sheer robbery of the whole family, of comfort, health, and those reasonable pleasures spread by the beneficent hand of the Lord, richly to be enjoyed.

There is a degree of barbarism and want of good sense upon this subject, both as applied to the fruit, the flower, and the vegetable garden, and also to the orchard, which our whole farming community ought to be ashamed of, and which we think must vanish before the millenium can reasonably be looked for. H. E. H.

## WHAT IS THE CAUSE OF THE FAILURE OF SO MANY TREES SENT OUT BY NURSERYMEN?

We have received a great many articles on this subject, and think our readers will be interested in the following extracts from a few of them:

"That very many trees sold by the nurserymen throughout the country do fail, is a fact which is too evident to be denied. As the above question has been proposed to elicit individual opinion on the subject, we will state ours.

We would say, first, that a great many trees sold are not fit to be transplanted. With a great many planters, a tall, smooth barked tree, that has made a strong growth, is preferred. Now to attain this object, nurserymen apply abundance of manure and plant close; the consequence is, the trees shoot up like magic, and being close together, have few small roots and few or no side branches.

Now when these trees are removed to the orchard, in the majority of cases they have no shelter, but are exposed to every storm that blows, and frequently with good care they are unable to bear the sudden change. How small, then, is their chance, when they are carelessly removed, with their roots broken and mangled, and after being exposed to the drying influences of the air, are crowded into small holes, with the earth carelessly thrown in about them, and then left to take care of themselves as best they can?

There are undoubtedly more trees lost by careless planting and negligent afterculture, than by all other causes put together. The fact is, arboriculture forms no part of the study of many who have to plant. It would save them a vast amount of disappointment and positive loss, if they could only be persuaded to inform themselves on the subject, by procuring a good work on pomology, or subscribing for a good agricultural paper, which have all a horticultural department, and which are to be had for a very small outlay, and it is to be regretted that it is not oftener done. In how few cases does a man who is spending ten or perhaps fifty dollars upon trees, spend one tenth part of even the least of these sums on reliable information on the subject. But to return; when trees are carelessly planted into a poor soil and an improper situation, and left to fight against grass and weeds which are already in possession, it is impossible that they can thrive—in fact, it is a wonder that they exist. If the spring should happen to be favorable, they may leaf out, but when the weather becomes warm and dry, the moisture soon evaporates, the ground becomes hard, and the trees dry up, and even when they do survive, they are feeble and sickly, making but little growth; and if they are so fortunate as to escape the cattle, and begin to bear fruit, it is of inferior quality.

How many orchards are there to be seen with large gaps in the rows, fair samples of Farmer Slapdash's orchard, which you gave in a former number of the *Genesee Farmer;* and it is no wonder that we hear it often said that fruit-growing does not pay. If that is the method, it certainly will not; but if a man will get good trees and plant them well, and take good care of them, protecting them from cattle, and cultivate the ground about them, the result will be a different story altogether; in such cases fruit-growing will pay, and pay well. In fine, the great secret of success is Good Culture. B.—*Flambro West, C. W.*

The question might be very readily answered by simply saying, "a want of proper care;" but another question immediately arises, viz: "What is the want of proper care?"—and therein lies the whole matter.

The desire for choice fruits is very natural, and therefore very general. A., B. and C., in a certain township, are very successful fruit culturists; they have all the choice varieties in perfection. Their neighbors are stimulated by the example, and think that they may as well have good fruit as A., B. and C. Accordingly they order varieties of good reputation somewhere—it may be in Maine, or it may be in Kentucky—they do not stop to consider where. They ask not a question about the *adaptedness of certain varieties to certain soils and locations.* They seem to think that "a tree is a tree," and if placed in the ground—no matter how, and no matter when—it *must needs grow*, and bear an abundant harvest of fruit. They have never devoted a moment's time to acquiring information with regard to the wants, nature and habits of fruit trees. They cannot tell why the apple, pear, peach, plum, cherry, quince and grape will not flourish equally well on the same soil and with the same location. They do not know why a hole that will answer for a *post* will not serve equally well for a *tree.* They evidently think that the *small fibrous roots*, through which alone the tree can receive its nourishment from the soil, are an *unnecessary appendage*, and in transplanting, they allow them to be broken off, or matted together, or wound around the large roots,

in just the condition they happen to find them. All this, and *more than this*, is true of at least one half of those who purchase fruit trees from nurserymen. And herein may be found the principal "cause of the failure of so many trees sent out by nurserymen."

But the nurserymen themselves are sometimes at fault. When their business presses, they hire *raw hands*, who, if not closely watched, take up trees very much as a farmer would *dig up a stump*, or as a physician would *extract a tooth*. While visiting an extensive nursery in Rochester, we saw a *deaf* "son of Erin" ordered to take up a Norway spruce. He gathered the beautiful branches in his hands, and pulled as for very life, till the proprietor ordered him to stop. Nurserymen, as well as the "rest of mankind," should do no more than they can do well.

When we consider the very general ignorance of the wants and habits of fruit trees, the wonder is, *not that so many die*, but *that so many live;* and of the number that live, many might as well die, for they are so poorly put out, and in such unsuitable soil, that they will never flourish.

"A book is a book, though there's nothing in it," —so a tree *may be a tree*, though there's *nothing on it;* but from all such trees, we should pray to be delivered. * F. *

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1st. Many of the trees are grown on highly manured ground, and consequently forced into an unnaturally rapid growth. For which cause the wood is not sufficiently ripened to withstand the severe frosts of winter, even when not removed from the nursery; much less are they able to bear the additional shock of being removed, perhaps to a new (and more severe) climate, with most of their fibrous roots cut off with the spade by careless or incompetent hands.

2nd. The manner in which the trees are prepared, or perhaps I ought to say not prepared, is doubtless one of the principal causes of so many failures. How often do we see farmers, and in fact all manner of planters, cutting off all the lower and better ripened branches of trees they are about to plant, thereby leaving the body of the tree unprotected against the sweeping winds of winter or the scorching rays of a summer's sun. Whereas, if the top and side branches had been properly shortened in, the rough winds of winter would have less purchase or force on them, and the sun less scorching effect in the summer. Many times, too, are the roots of the tree left just as they came from the nursery, bruised and torn, (necessarily, more or less,) to recover as best they may.

3rd. The improper preparation of the ground is, I apprehend, a serious cause of failure. How many trees are thrust into the ground with just enough of the soil removed to crowd the roots into the hole dug out for the same, and then the whole amount of covering trod or pounded down until it bakes so hard that neither air nor water can reach its roots?

4th. The staking, too, should be attended to, that when the tender roots start anew, seeking to nourish the tree above them, they may not be broken off by the wind moving them to and fro.

5th. Very many trees are lost for the want of being properly mulched. Too many planters, alas! do not even know what to do when told that they should mulch their newly planted trees. Of course, they could not have been readers of the *Genesee Farmer*.

6th. Again, many trees are killed by the new and tender foliage being eaten off by the various insects and worms that infest them in the spring and early summer.

7th. The apple and peach-borer should come in for a part of the blame—too often, I am sorry to say, already in the tree when it comes from the nursery. H. S. H.—*Roanoke, Huntington, Ind.*

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Perhaps one of the greatest causes of failure is the general ignorance of the physiology and culture of plants. The careless observer of nature finds little more to interest him, in the root, stem and leaves of a tree, than he does in a stake, and in all probability would plant each with about the same care. But to the mind of the student of nature, how very different! Instead of seeing in a tree only one homogenous mass, he sees a living, organized being, composed of solid and fluid parts, having vessels of different kinds, variously fitted to carry on the operations of imbibing nourishment, of making a chemical analysis of the same, and of appropriating to themselves such elements as are necessary to promote their health and vigor.

The first cause of failure, after trees are purchased for planting, is the careless manner in which that operation is usually performed, viz: planting in land sowed to grass—planting too deep—planting where water will stand about the roots—neglect of culture—not protecting the trees from severe freezing, protracted drouth, mice, rabbits, &c., &c. In short, not planting in a good, deep, finely pulverised soil, with the roots spread out in a natural manner, and no deeper than they grew in the nursery,—shortening the top in proportion as the tree may have roots, —keeping the ground mellow and free from weeds, —pruning but little, cutting off only decayed, crossing or straggling limbs. If the latter practice was followed as much as the former, I think we should hear fewer complaints of failure.

I would suggest to planters to purchase none but good trees; buy only of responsible men; buy those trees only that are budded or grafted on good, free growing seedlings, that are worked just above the "collar," or surface of the ground, with scions from young and healthy trees, and cultivate as before suggested, and my word for it, there will not be so much complaint about failures. Jas. P. Kelly.—*Middle Creek, Ky.*

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I have taken trees from nurseries and transplanted with entire success, and think I can do it again. My rule is this:—Take them up in a damp day, (I care not whether fall or spring;) leave on all the roots practicable, and dirt likewise; carry in a spring wagon, and avoid rubbing as much as if I were carrying new furniture. Make the soil as nearly like the parent soil as possible, and make a generous hole for the tree, but do not use much manure. I also set as soon as possible after procuring the trees. D. M.—*Moscow, N. Y.*

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I think the chief reasons of failure are—

1st. Carelessness in taking them up, the roots being often cut short and bruised, and the consequence is, they are stunted or die.

2nd. A want of proper care in packing them. The roots become dry from exposure in transportation. J. Catt.—*Cheviot, Ohio.*

I will briefly state my views on this subject. For two reasons, it is the interest of the nurserymen to advance the growth of their trees with all possible speed. Firstly, a thrifty tree is more attractive to the purchaser; and secondly, it is sooner ready for the market. The trees continue their growth until it is arrested by the cold in the fall, and the wood not being matured, they are not prepared to endure the frosts of winter equally with those of slower growth. We have frequent demonstrations of this in the growth of long scions on fruit trees.

Again: in removing trees, there are many fibrous roots which are cut off, and freqdently the trees are set out on a poorer soil than that from which they were taken; therefore the trees are not in a situation to receive their former ample supply of nourishment. Likewise, the trees while in the nursery stand densely together, and mutually protect each other; and the sudden transition and deficiency of sap consequent on the removal of the trees to an open field, exposes them to the powerful rays and withering influences of a summer's sun, as well as the more penetrating frosts of winter, and as a natural consequence, many of the trees wither and die. J. C. Manning.—*Frontier, Clinton Co., N. Y.*

The reasons why there are so many failures of this kind are different. 1st: The taking up of trees is often entrusted to hands that are not careful about cutting and barking the roots. 2nd: They are apt to be left too long after being taken from the nursery before they are set, so that the roots and top also get too dry. 3rd: When they are set, too much rich manure about the roots is injurious. They should have merely some good soil.

Trees are often carried a great distance in wagons, which of course operates against them. The soil should not be packed too hard about the roots. They are frequently set in poor, thin land, after they are taken from a nursery which is highly manured, and then left to take their own course. Can anything but failure be exepcted in this way? If trees are expected to thrive, they must have every attention paid them. When they are taken from the nursery, all the roots should be kept whole that possibly can; they should be set as soon as possible after they are taken up, the same depth they were in the nursery, not manured too much until they are rooted fast, and they will generally do well.—J. H. P. N.—*Queens Co., N. Y.*

The Rural Annual.—The *Rural Annual* is a valuable work, and should be in the possession of every agriculturist. The one article which it contains on the cultivation of the grape, by Mr. Salter, of Rochester, is worth half a dozen numbers. It is the clearest and best written article I have ever seen on the subject. I have given much personal attention and labor to the summer pruning of our vines, keeping back the lateral branches, and the large clusters on our young vines told with what success. Yet I am satisfied with much greater success, had our vines been trained according to the directions in the above named article. I would say to any one who wishes to train a grape vine in the right way, be sure and get the *Rural Annual* for 1858. H. H. Myers.—*Liverpool, N. Y.*

## THE CULTIVATION OF TOMATOES.

When the weather gets warm, and the soil in good condition, transplant the young plants to the garden. The best way is to set them in rows three feet apart, and two feet apart in the rows; having dug a trench the length of the row, fill it with fine manure mixed with soil; set the plants with care, on a cloudy day, or secure them from the sun; water frequently in dry weather, and with liquid manure if possible. Cultivate well. Keep clear of weeds. Stir the soil around the plants often. When they get their growth, and begin to form fruit, all superfluous branches should be cut off, to allow the sun to shine on the fruit.

If the vines require support, and they most likely will, a convenient way is to drive crotched sticks at convenient distances, upon which lay small poles, then carefully place the vines upon them; place the supports so as to turn the rows from each other; this gives room for going among the vines, and allows the sun to shine upon them better. The fruit must be picked or covered from frost, as it injures it. If not fully ripe when picked, they may be ripened in the house. E. B.—*Pharsalia, N. Y.*

In the spring, select a warm, sheltered spot, at the south side of a house or board fence, and as soon as the heavy frosts are over, dig a trench the size you want your bed, to the depth of a foot, and fill in with warm horse manure, pressing it close, to the level of the ground; then put on about two inches of fine garden loam, sow the seed, and rake it in. The warmth of the manure in the bed will prevent them from being injured by a light frost, and will bring them on rapidly. Last season I had ripe tomatoes, on plants raised in that way, before the plants raised in the hot-bed; and I did not have to water them at all, while the hot-bed plants had to be watered regularly, and some died at that.

As soon as they are ready to plant out, have a piece of land rich, or made so—soft or medium hard does not matter—and set them three feet apart each way. For a small piece in a garden, it makes a very pretty show, and the tomatoes will be about a week earlier, to have them trained on a trellis; but where they are to be cultivated on a large scale, it will not pay. I have tried it both ways, and I find that if kept clean, and hoed up in fine round hills, as soon as the fruit gets heavy they will fall down all round the hill; and I have had just as many and as fine tomatoes as on the vines that I had been at the greatest trouble with. R. S. T.—*Niagara, C. W.*

Set the plants in rows four feet apart, running north and south, so that the sun has a fair chance to ripen them, and three feet apart in the rows. As they grow, place a post at each end of the row, through which draw wires, eighteen inches from the ground first, then eight inches apart—the posts five feet high. Cut off all lateral shoots, a short distance above the first leaves, so as to prevent its injuring the main stalk as it dies. Train them in fan shape, and at the height of five feet cut off the tops. Tie the branches to the post and wire with basswood bark; as the tomatoes begin to ripen, pull off the leaves near the fruit. For early ripening, a piece of poor ground is the best, though such large tomatoes cannot be expected. Aderine H. Sater.—*Harrisburg, Ind.*

## CULTIVATION OF THE PEACH.

EDITORS GENESEE FARMER:—There is no grain crop that is more sensitive of good treatment than the peach crop. In traveling over the country, we see many orchards that are planted out and then left to *chance*—that is, the owners mean to cultivate them, but they want to do it when all the rest of the work is done; and it frequently happens that they do not trim them at all, nor plow them, until winter. Is it any wonder that raising peaches, with such men, is *humbug?*

Now I shall not try to give any particular mode of cultivation that will hold good on all kinds of soils, for my observations lead me to believe that on different soils different treatment is required, and some kinds of peaches will do better on some soils, than others; but nothing else will teach a person this but experience. It answers best for cultivators in this part to manure their trees heavily, particularly after they commence bearing. If your numerous readers could but come into our orchard, I think I could convince them that it is difficult to put too much manure on peach trees here. Where we had large heaps of barn-yard manure in our orchard, the trees have outgrown the rest, and produced by far the finest fruit; (I might here say that the apple trees that were near the manure heaps have not grown near as well as the others;) but I have seen orchards only a few miles distant, that manure seemed to do hurt instead of good. So I am certain that no definite mode can be given that will hold good on all soils.

Here let me say one word about trees. Buy only of good and experienced nurserymen, or men that have had considerable knowledge in the peach business. Now, in proof of this, let me relate a little circumstance that came under my notice this last summer. While walking through a gentleman's orchard, about eight days before the earliest peaches should have been ripe, I noticed an Old Mixon peach tree from which a large portion of the top had been cut off, and in taking more particular notice I found a very fine peach, which I took off and showed to the gentleman. He said he thought they were the finest peaches he ever saw, and they were cutting the top all off to innoculate with. I told him that the peach ought not to ripen yet for three weeks, and in another year or two at most the tree would be dead, which seemed to take him by surprise. It is certainly reasonable to suppose that diseased buds will give diseased trees, and that gentleman will find it so to his sorrow. Now all good nurserymen are very careful to select buds from the most healthy trees that they can find, and it takes a person of considerable knowledge to be able to judge rightly.

In my next, I will tell you our mode of cultivation.

J. L. B.

*Pennington, N. J.*

PEGGING DOWN PLANTS.—Where it is not convenient to get pegs, take pieces of bast about eight inches long, and put them round the shoots where it is wished to fasten them to the ground; then place the two ends together, and press them into the ground with a little dipper made flat at the point. When the ground is damp, is the best time for performing the operation.

## SHELTER FOR ORCHARDS.

EDITORS GENESEE FARMER:—On reading the extract from D. EDWARDS' letter, in the April number of the *Farmer*, where he says few have died, (apple trees,) "even on the *west* side of hills and greatly exposed to *westerly winds*," I am minded of "CYDER PHILLIPS" directions, (in that most finished poem of his, "Cyder,") where he says—

"Who'er expects his laboring trees should bend
With fruitage, and a kindly harvest yield,
Be this his first concern; to find a tract
Impervious to the winds, begirt with hills,
That intercept the Hyperborean blasts
Tempestuous, and cold Eurus' nipping force,
Noxious to feeble buds: but to the *west*
*Let him free entrance grant;* let zephyrs bland
Administer their tepid genial airs;
*Naught fear he from the west*, whose gentle warmth
Discloses well the earth's all-teeming womb,
Invigorating tender seeds."

Let all who love "*orcharts*" buy and read *Cyder Phillips*, the most complete poem on the subject, of its time, and the most learned. There he gives a complete description of the fruits of his time, their mode of culture, grafting, and probably all that was then known of the different fruits from which "cyder" or wine, and other potables, were then made.

"On our account has Jove
Indulgent, to all moons some succulent plant
Allotted, that poor, helpless man might slake
His present thirst, and matter find for toil;—
Now will the Corinths, now the Rasps supply
Delicious draughts; the Quinces now, or Plums,
Or Cherries, or the fair Thisbeian fruit,
Are prest for wines; the Britons squeeze the works
Of sedulous bees," &c.

But I must close for fear of tiring you, and will only say, read "*Cyder Phillips.*"

*Rochester, Ind.* CHARLES BRACKETT.

## PRUNING AND CULTIVATING APPLE ORCHARDS.

EDS. GENESEE FARMER:—The more I observe of orchard culture, the more am I impressed with the truth that men *prune* too much, trim too *high*, and plant too *deep*.

An orchard was planted ten years ago. Two trees were never pruned or trimmed; the rest were, after the most approved English style. They made a good growth, are headed about five feet from the ground, and bear as orchards usually do in the best of Indiana soils—and that is as well, or a little better than in any other western—no, any other State, east or west.

The two trees branching from the surface are in circumference *four times* as large as those headed five feet from the surface, and have *branches* as large as the *trunks* of the other trees, and bear proportionate crops of fruit.

The plow should never go in an orchard after the first five years of its age. Plow an orchard repeatedly, *which has a poor or wet subsoil*, after it is ten or twelve years old, and you will certainly kill it. Possibly, with a good, rich, dry subsoil, it may live on after a fashion, yet it will be an unprofitable orchard. If the subsoil is poor or wet, and the trees are properly planted, and the surface roots not cut with the plow, it will do a pretty good business, getting from the surface soil all that is necessary for wood and fruit.

*Rochester, Ind.* CHARLES BRACKETT.

### TOBACCO AND THE PLUM CURCULIO.

Messrs. Editors:—Being at the house of a friend, in June last, I was surprised at seeing his plum trees nearly breaking down with fruit. He informed me that his remedy was, to take an old tin basin, make a few holes around the sides, near the bottom, and have the basin secured to the end of a pole long enough to pass the dish through all parts of the tree. He then takes some fire and a small quantity of any old refuse tobacco, and puts in the dish; this smoking, he takes the time early in the morning, while the dew is on, and passes the smoking dish through all parts of the trees. It should be commenced on the first formation of the fruit, and continued six or eight weeks—the oftener it is done, the more sure you will be of saving all your plums: he only smoked his trees twice a week. He says the first few times he could see the insects leaving in a swarm, and soon there were but few to be seen. He says that by smoking while the dew is on, the smell of tobacco will be longer retained in the trees, and that for his eight or ten large trees it would take him about an hour each time, and his expense for tobacco was three York shillings. To prove that the insects did not like the fumes of tobacco, his neighbors, only a few rods distant, and who would not take so much trouble, were rewarded by not saving a plum. It would have done you and your many thousands of subscribers good, to have seen these trees, loaded with the delicious fruit, and to know that with a little trouble, and a very little expense, this excellent fruit may be preserved. B.

*Port Byron, C. W.*

### WIRE FOR GRAPE TRELLISES.

Editors Genesee Farmer:—Your correspondent Henry Lampman makes the following inquiry in the March number: "Will you inform me whether common No. 8 or 9 wire, or galvanized, is best for vineyard trellises, and what would be the cost of the wire, and how much would it take per acre, the rows being 12 feet apart, and the vines 12 feet apart in the row?"

Galvanized wire is much the best for trellises, but, as it costs just twice as much as common wire, it is very seldom used.

No. 11 annealed wire is in common use for trellises, when the posts are not more than 12 feet apart. Nos. 8 and 9 are larger than necessary. The annealed wire must be boiled in linseed oil, or painted with gas tar in which a very little lime has been slaked, to keep it from rusting.

The amount of wire will depend upon the height of the trellis. If it is six feet high, (the usual height when grapes are grown for table use,) it will require four courses of wire. No. 11 annealed wire is generally estimated at 200 lbs. per mile. With this information, your correspondent can easily determine the amount of wire he needs.

The cost will depend upon the market where he purchases. It can now be bought in New York city for six cents per lb. Or, if your correspondent should prefer, he can purchase in Wheeling, Va., bridge wire of the right size *already coated with gas tar.* E. F. ENSIGN.

*Madison, Ohio, April,* 1858.

### TO DESTROY THE CURCULIO.

Plow your plum orchard the last of November or first of December, before a freeze; cross-plow and harrow thoroughly in March, or before the freezing is over. If not convenient to plow, throw up the ground with a spade, and pulverise well; if not likely to freeze in a short time, sprinkle lime profusely under the trees. Apple, peach and cherry orchards should be dealt with in a similar manner, only once plowing will suffice. When the curculio is very bad, they work on all these kinds of fruit. A portion of them will fly a considerable distance.

The advantages of this plan over outward applications are, that it destroys the curculio in his winter quarters, and pays more than four times the cost of labor by improving the trees and fruit, besides destroying many other kinds of insects that bite and sting apples and peaches. The fruit is not so liable to get killed with the late frosts, as the plowed ground is a conductor of cold, drawing the frost down below the trees. I have seen plowed ground under trees frozen hard, and not a particle of frost on the trees. JOHN JOHNSON.

Cultivate the Soil around Fruit Trees.—In the year 1854, the year of the great drouth here, I had some apple trees standing in a piece of clover, and some in a part of the garden; those in the clover were worked around once or twice in the early part of the season, and those in the garden were cultivated all the summer. The trees that stood in the clover were so injured by drouth that I had to mulch them, and water them twice a week, and could hardly save them; while those that were kept clean, and the surface stirred through the season, grew luxuriantly, and appeared to be affected but little by the drouth. These trees had been planted several years. I had a few trees standing in the nursery, two years old from the graft, kept well cultivated through the summer; they grew seven feet high, and were the admiration of all who saw them. So much for keeping the land well plowed, and the surface continually stirred and kept light, during a drouth. A. G. Mullins, *Chesher's Store, Ky.*

Large Purple Egg Plant.—A correspondent at Montgomery, Ind., (G. W. Gardner.) thus writes:

"I must tell you of an egg plant, of the *Round Purple* kind, which I raised. It measured 29¼ inches round from blossom to stem, and 25¾ inches in circumference, and weighed 7 lbs. 2 oz. If any of your readers have seen anything that can beat this, I should like to hear from them. The bed in which it grew was prepared thus: It was first dug deeply, and made perfectly mellow. Holes were then dug, in each of which was put about half a pint of well-rotted manure, then nearly filled with earth, and the plants set in them, after which they were kept well hoed."

Pruning Peach Trees.—A lady who dearly loves good peaches, would like an accurate description of the best manner of pruning young peach trees. Should the offshoots all be cut off from the main branches? How many branches should be left? Should the ends of the branches be cut off, and how much? H. H. M.—*Liverpool, N. Y.*

## THE TRUFFLE.

THE TRUFFLE.

Of all edible fungi, the Truffle, in the higher departments of cookery, is most highly prized. The common variety, (*Tuber cibarium,*) of which we annex an engraving, is found growing under ground in the southern part of England, and is obtained from the truffle-hunters, who train dogs to scent them out. It is of very irregular form, inclining to globular, without root or stem. It has never been grown artificially in England, with much success, though many attempts have been made, and a number of treatises written on the subject. Some of the continental gardeners, especially in Prussia, have been more successful. Its culture is somewhat similar to that of the mushroom. We do not know that it has ever been cultivated in this country.

The following statement has recently been going the rounds of the papers. It is a matter in which all who have ever tasted truffles will feel interested. We fear it is "too good to be true."

"It is thought that a discovery has at last been made, which, if it really turns out what is supposed, may be the cause of a trade of absolutely unlimited extension being opened to France. A man of the name of Rosseau, in the department of Vaucluse, would appear to have found out the means for the propagation of truffles, a secret which has hitherto escaped all the researches of science. This man has been following out his plan, as the departmental journals say, for the last seven years, and his first essay has been entirely crowned with success. His notion has been, that the precious excrescence was dependent upon a peculiar kind of oak, which he calls the truffle oak (*chene truffier,*) and he has accordingly made plantations of such. A few days back a certain number of persons were invited to witness the first hunt, and two pigs were turned into an oak plantation of five years standing. The experiment succeeded so entirely that in a few hours, and on a plantation of not more than three hectares, twenty-two pounds of very fine truffles were turned up, and Mr. Rosseau says a similar hunt may take place every twenty days during four months of the year.

To Destroy Caterpillars on Fruit Trees.—The best method that I have ever seen used, is to make a strong whitewash out of fresh-burned lime, and apply to the nest with a brush or swab; and if it is applied to the whole tree it will do no harm. A Young Farmer.—*Vernon, Ind.*

Allow me to urge your readers to send you 25 cents and get the *Rural Annual* for 1858. The article on "Profitable Fruit Culture," is alone worth more than the price of the book. Jas. Henshaw.

# Ladies' Department.

## ORIGINAL DOMESTIC RECEIPTS.

[Written for the Genesee Farmer by various Correspondents.]

Stewed Chicken.—Prepare and cut up the fowl in proper pieces for the table; put into the stew-pan or kettle, with plenty of salt and pepper to season; add what butter you wish, and a small quantity of saleratus (not enough to discolor) to assist in making it tender, and prevent its rising on the stomach; add only water enough to cook it, cover close, and stew moderately. Turn occasionally, that it may cook and season evenly; when nearly done, remove the cover, that the water may mostly evaporate. If you choose, dredge and boil in some flour. Turn on some sweet cream, boil up and serve. Squirrels are good cooked like the above, omiting the cream.

Brown Gravy for Roast Fowl.—Chop the heart, liver and lights of the fowl; put into the spider with butter, pepper, salt, and a little water. When boiling well, add some sweet cream and boil. Stir it, or it will burn.

Raised Biscuit.—Heat three cups of sweet milk, with one of butter; work it warm into the flour, with a tea-spoon of saleratus. Have ready some yeast or light sponge, the same as for bread; work this in when the mixture is milk warm; mix it well, but not stiff, and set in a warm place to rise. When light, mould into cakes, let them set awhile, (five minutes or so,) prick the tops of each; bake in a quick oven. These are similar to those made from bread dough. Cold biscuit can be warmed to taste like new, by turning cold water upon them to wet the crusts, then warm through, in a moderate oven.

Soda Biscuit.—One quart bowl of flour, one tea-spoon of soda, two of cream tartar, salt, sour milk and sour cream to mix; bake quick.

Lemon Pie.—One grated lemon, one beaten egg, one tea-cup of sugar, one and a half tea-cups of sweet milk, three tea-spoons of flour. Must not add the lemon till just as you set it in the oven. Bake with two crusts. Mix and bake as common custard pie.

Another.—Beat the yolks of four eggs, add the grated rind and juice of one lemon, and five table-spoons sugar; bake with an under crust. When done, add the whites of the eggs, beaten to a froth, with five table-spoons of white sugar; bake again a few minutes. *Try it.*

Extra Cup Cake.—Mix as written. One cup butter stirred to a cream, two cups sugar, the yolks of four eggs, tea-spoon of essence lemon or sweet almond; one tea-spoon of soda dissolved in a little hot water put to one cup sweet milk; then three cups of flour, the whites of four eggs beaten to a froth; lastly, two cups of flour with two tea-spoons of cream tartar, well infused; one cup wine, *if you like.*

Baked Chicken.—Dress the chicken, then make a dressing with which to fill it, of light bread crumbled fine, a lump of butter the size of a hen's egg, some pepper and salt: moisten with water. Place the fowl in a pan, with a pint and a half of water, sprinkle a little salt over it, and bake half an hour.

To Preserve Eggs.—Put one hundred dozen into a barrel carefully; take a vessel that will hold six pails of water, put in a half peck of unslacked lime, and slack it as you would for whitewash; while hot, put in three quarts rock salt; fill up the barrel with cold water, stir it up well, and pour over the eggs; keep them in a cool cellar.

To Cook Sturgeon.—Take three or four pounds of fish, put into cold water over the fire, and let it boil ten minutes; repeat this process three times; then place it in a pan with a little butter spread over it, and bake three-fourths of an hour; while hot, pour over a tea-cup of sweet cream; as soon as it boils, serve. If the fish is fresh, some salt must be added while parboiling.

To Cook Codfish.—Take a piece of fish two inches square, and let it freshen five minutes in boiling water; pour off the water and shred the fish fine; then add one quart milk, two spoons cream. When it boils, add a spoonful of flour for thickening, and a little butter and pepper.

Blanc-mange.—One quart water, one ounce isinglass, and let it boil till it is reduced to a pint; then add whites of four eggs, two spoons ricewater, and sweeten to taste; add two ounces sweet and one of bitter almonds, and scald; then strain.

Green Apple Pie.—Stew and strain the apples, grate the peel of a fresh lemon, or rose water and sugar, to your taste. Bake in a rich paste half an hour.

Boiled Wheat.—Pick over and wash a pint of white wheat, boil it four hours, put in salt the same as for rice; re-fill with boiling water, if more is needed; stir often the last half hour, being careful not to let it burn; cook it dry. Sometimes it looks starchy when first dished, but that soon disappears. Serve hot or cold, with sweetened sweet cream. This we think an excellent dessert, and very fine for invalids.

Another very rich dish, for dessert, can be made of a pint of wheat, cooked like the above, then boil in a quart of sweet milk, one cup of sugar, one cup of raisins, currants, or any fruit, (raisins are preferable,) two beaten eggs; cook slowly, and stir until it boils; serve cold or hot, without sauce. Or, after the wheat is washed, soak it in warm water over night, keep it wet till time for use, then simmer the water all out of it; then add the milk and other ingredients, and cook as above.

Lemon Cake.—One tea-cup of butter, three tea-cups of white sugar, beat them to a cream; then add the yolks of five eggs, well beaten; dissolve a tea-spoonful of saleratus in a cup of sweet milk, and add one grated lemon, four tea-cups of flour, and the whites of the eggs beaten to a froth.

Baked Rice Pudding.—Flavor and sweeten to taste, two quarts of milk, one tea-cup of rice, one tea-cup of raisins, two well beaten eggs, a table-spoon of butter, and a little salt. Bake two hours.

Quick Ginger Beer.—To a pail of water, add two ounces of ginger, one pint of molasses, and a gill of good yeast. In two hours it is fit for use.

Lemon Beer.—To a gallon of water, add a sliced lemon, a spoonful of ginger, a half pint of yeast, and sugar enough to make it quite sweet.

Puff Pudding.—One quart of milk, six eggs, seven table-spoonsful of flour, half a tea-spoon of saleratus, a salt-spoon of salt. Bake twenty minutes; serve soon as baked, with maple syrup, or butter and sugar.

Drying Raspberries.—Spread the berries on earthen plates, place them on a hot oven until they are scalded; them turn them on drying boards, or hurdles, and dry in the sun.

Drying Blackberries.—Place them in a hot oven, until they are thoroughly heated. Lay newspapers on your drying scaffold, spread the berries thinly on it, and dry thoroughly.

Currant Apple-Sauce.—Take the strained juice of ripe currants and boil it till it has evaporated one-third; skim from it all sediment that may rise to the top while heating; when reduced to the proper quantity, cool and set it away in proper vessels in a cool place. It is then ready for use, and will keep any length of time without fermenting. To three quarts of juice add one quart of water; take sweet apples, either dried or green, and cook the same as with boiled cider; sweeten to taste. It is pronounced by good judges to be fully equal if not superior to the best boiled cider apple-sauce.

## LADIES, WRITE FOR THE GENESEE FARMER.

Messrs. Editors:—I have often felt like expressing my gratitude to the editors of the *Farmer*, and also to its numerous able contributors, on account of the pleasure its perusal has afforded myself as well as husband. It contains so much that is practical and interesting, that it cannot fail to be of vast importance, especially to those who are tilling a spot of ground. This is the very thing we want—some practical hints exchanged, and the experience of others to guide us. We want to know how to make good productive gardens and orchards, that our cupboards may be full, and our hearts merry for our abundance. We want your advice, how to make a nice yard, there to rear some creeping vines and fragrant flowers; their presence seems to breathe of contentment and happiness. There are a thousand things we want to know. For instance, we want to hear some practical hints on housekeeping; for we verily believe it to be a science—one too that requires much skill and judgment.

I hope more ladies will contribute to the pages of the *Genesee Farmer*, than formerly. An exchange of sentiment and practical knowledge might open the eyes of many a housekeeper, who is oppressed with labor, all perhaps because she does not know some important things that would, if practised, enable her to perform her duties with ease and pleasure. Come, sister housekeepers, let us hear from you. As for myself, I am a young hand at the business, but would like to become thorough and good.

CHARLOTTE.

*Chester County, Pa.*, 1858.

"What are the Proper Duties of a Farmer's Wife?"—I would answer in the words of the wise man—Prov. xxxi: 27—"She looketh well to the ways of her household, and eateth not the bread of idleness." It would be useless to add more. N. Conklin.—*Clarence, N. Y.*

**New Advertisements this Month.**

The New American Cyclopædia—D. Appleton & Co., New York.

Nurserymen, Florists, and Agriculturists—Paul Bossange, New York.

Yeomans Fruit Bottle—T. G. Yeomans, Walworth, Wayne Co., N. Y.

Wooden Water Pipe—I. S. Hobbie & Co., Rochester, N. Y.

Rochester Agricultural Works—A. Gordon & Co., Rochester, N. Y.

Lehigh Mountain Springs Water Cure—A. Smith, M. D., Bethlehem, Pa.

Burrall's New Adjustable Reaper and Mower—Thos. D. Burrall, Geneva, Ontario Co., N. Y.

Removal of the Horticulturist—C. M. Saxton, New York.

Corn-Husking Machine—J. Perkins & Co., West Killingly, Ct.

Morgan Horse Zachary Taylor—Daniel D. McVean, York, Livingston Co., N. Y.

Real Estate for Sale—Edgar F. Peck, M. D. Brooklyn, N. Y.

New England Settlement—S. B. Coughlin, Philadelphia, Pa.

Chester White Pigs for Sale—H. T. Wollard, Castine, Darke Co., Ohio.

To our Agents and Friends Everywhere.—As there are thousands of farmers who have discontinued the high priced papers on account of hard times, and who are not now taking any agricultural journal, we have concluded to take half-year subscriptions to the *Genesee Farmer*, and we trust our friends will make an effort to send us in a few thousand additional subscribers. We will send the *Farmer* from July to December, inclusive, to single subscribers, for 25 cents; five copies for $1,00, with a *Rural Annual* to the getter up of the club; and eight copies for $1.50, with a *Rural Annual* to the person getting up the club. All subscriptions must end with the year. We can supply the back numbers if desired.

"Read the Advertisements."—We would call particular attention to the advertisement of Yeomans' Glass Bottle for preserving fruit. We can confidently recommend it. Mr. Yeomans has had much experience in preserving fruit, and will furnish our readers full information on application to him by letter at Walworth, N. Y.

Of Pitts Thrashing Machine, it is unnecessary to speak. It is universally conceded to be the best machine of the kind in the world, and is manufactured by A. Gordon & Co., of this city, in the best manner, and with the latest improvements. The Horse-Hoe, also manufactured by A. G. & Co., we can recommend as a very superior implement. It has been thoroughly tested throughout Western New York, and gives great satisfaction.

Seymour & Morgan's Self Raking Reaper and Mower Combined is all that is claimed for it, and Manny's Machine with Wood's Improvement, is so well and universally known that commendation is unnecessary.

The second volume of *Appleton's New American Cyclopædia* fully maintains the high character of the work. See advertisement in this number.

Two valuable Grasses.—Wm. Ruble, of Eola, Polk county, Oregon Territory, wishes to call attention to two valuable varieties of grass which he found, on his overland route to Oregon, "near the base of the Rocky Mountains, at an elevation of 4,500 feet above the level of the sea, in latitute 39 deg. 30 min. north, and longitude 13 deg. 35 min. west, from Washington. The first resembles timothy, but heads out like blue grass. When I found it, on the 8th of June, it was two and a half feet high, of fine promising quality, very nutritious, and stock exceedingly fond of it. It is a little inclined to bunch, and standing plenty thick to turn off a heavy swarth. The other resembles it in appearance, is of the same height, but much later." Mr. R. adds: "When we take into consideration its elevation, and the backwardness of the spring at that point, (it was frosting frequently on the road in that vicinity as we passed, and I observed the day before that the strawberries were just in bloom,) it bids fair to become the best early grass known; and I feel it a duty to point out its existence, that persons passing that way late enough in the season may procure seed. It stands on Cherry Creek, about 12 miles from its mouth, and 15 miles from its head, on the so-called Evans' route."

The Summer Exhibition of the *Genesee Valley Horticultural Society* will be held in this city, June 24. The prospects of the Society were never so flattering as at present, and we hope that the horticulturists and fruit growers in this and the adjoining counties will not only attend the exhibition, but enroll their names as permanent members of the Society, and become contributors. It is to be regretted that these magnificent shows, which are unequaled in the United States, and are worth traveling a thousand miles to see, attract so little notice from farmers and fruit growers in the immediate vicinity.

Copies of the Constitution, By-Laws, and Premium Lists, can be obtained on application to the Secretary, C. W. Seelye, Rochester, N. Y.

Sanford Howard, editor of the Boston *Cultivator*, sails for Europe on the 2d of this month. He goes mainly for the purpose of purchasing stock for the Massachusetts Society for the Promotion of Agriculture. No better man could have been selected. If any of our readers are desirous of importing any cattle, sheep, pigs, etc., Mr. Howard will execute their orders.

We shall be disappointed if Mr. H. does not give us some of the most useful articles on English Agriculture that have yet appeared in this country.

Many excellent communications already in type, are necessarily left out till next month. The press upon our columns was never so great as at this time. We are under great obligations to our numerous correspondents for their repeated favors. We fully appreciate the value of their assistance. The *Genesee Farmer* is the "farmers *own* paper." By communicating their experience so freely for its columns, they have made it the *most popular and the most extensively circulated agricultural monthly in the world.*

The Atlantic Monthly grows better and better every month. The "Autocrat of the Breakfast Table, or every man his own Boswell," is worth the price of the work. Published by Phillips, Sampson & Co., Boston, Mass. Price, $3. A new volume commences this month.

BLACKWOOD'S MAGAZINE.—We cannnot speak too highly of this old and sterling monthly. Of all periodicals, British or American, there is none that we read with so much pleasure as *Blackwood*. It is reprinted by L. SCOTT & Co., 54 Gold street New York, and is sent to any address, postage paid, for $3 per annum. The price in England is $7.50. L. SCOTT & Co., also republish the four British quarterly Reviews—*Edinburg, London, North British*, and *Westminster*. Price, $3 each. The four Quarterlies and *Blackwood* are sent to one address for $10.

EXHIBITION OF SEED WHEAT.—A Canadian correspondent asks, "Would it not be wise to hold shows in every wheat-growing county in the United States and Canada, for the express purpose of showing seed wheat?" Doubtless such exhibitions would do much good; but why have them confined to wheat? Why are not our regular County Fairs quite as good, providing sufficient inducement is offered to exhibitors?

THE HORTICULTURIST has passed into the hands of C. M. SAXTON, (25 Park Row, New York,) so well known as the Pioneer agricultural and horticultural book publisher. The readers of this popular horticultural journal may confidently expect great improvements in the work. Price, $2 per annum; with colored plates, $3.

CHIP MANURE.—A correspondent says he puts chip manure under the currant bushes. It is not only, when rotted, an excellent fertilizer, for currants, gooseberries, etc., but it serves the purpose of a mulch, and also keeps the currants from the ground and from getting dirty.

AGRICULTURE OF MASSACHUSETTS.—We are indebted to C. L. FLINT, Esq., the able Secretary of the Massachusetts Board of Agriculture, for his Report for 1857. As usual it abounds in useful and interesting matter.

THE Spring Meeting of the Fruit Growers Society of Western New York will be held in this city, June 30. For further information address the Secretary, C. P. BISSELL, Rochester, N. Y.

IT is now proposed to have the "Convention of Agricultural Editors" hold their meeting in New York during the session of the American Pomological Society, September 14.

PRIZE ESSAYS.—Our correspondents will recollect that essays on the subjects named in the April number must be sent in on or before the first of June.

## Inquiries and Answers.

FLAX SEED FOR CALVES.—Will Mr. AVERY oblige the readers of the *Genesee Farmer* by informing them whether he gave his calves a half-pint of flax seed *each* for two days, or a half-pint to the eight? I see nothing why Mr. AVERY's method might not be a good one. I think your Indiana correspondent has never raised many calves, as it is very seldom that a flock of calves of from five to ten come to the barn free from lice without regard to flesh. J. O. DAWES.—*Le Rayeville, Bradford Co., Pa.*

CARE OF COWS AFTER CALVING.—Please inform me, through the *Genesee Farmer*, what remedies to use when cows get wet, or drink cold water, soon after calving. I have lost a valuable cow this spring, as I suppose, from accidentally getting caught in a thunder shower, the next day after calving, and no disease was known, and no traces of any could be found. EMORY P. BARNES.—*North Pharsalia, N. Y.*

ASHES FOR CORN.—I have a field seeded in rye to harvest this year and want to plant it in corn next spring. I wish to cover it with ashes sometime between harvest and planting time. When is the best time and way of applying them—immediately after harvest, next fall, or next spring before planting, before or after the ground is broken up?

I have a ditch from six to ten feet deep, in a very sandy, washy hill, that I wish to wall or trunk to prevent caving. What (in the absence of stone and where timber is plenty) is the best and cheapest mode of doing it?

Any information upon the above subjects, from you or any of your correspondents, would be very thankfully received by a young farmer who lives remote from, and consequently deprived of, many of the advantages of information upon agricultural improvements. Please let me hear from you soon. J. R. DILL.—*Eastern Shore, Md.*

MANURE POND.—Can some of your many correspondents inform me, through the columns of the *Genesee Farmer*, the best plan to fix a pond in a barn-yard to make manure in? Ought it to have a floom or outlet, or, like a lake, to run out when full? All the particulars, and the best plan and way to make manure, would be thankfully received by one of your subscribers. A. TIFFANY.


## ADVERTISEMENTS,

To secure insertion in the FARMER, must be received as early as the 10th of the previous month, and be of such a character as to be of interest to farmers. TERMS—Two Dollars for every hundred words, each insertion, PAID IN ADVANCE.

### HEREFORD CATTLE.

A LOT of thorough-bred Hereford-Cattle for sale.
S. M. ELY.
April, 1858.—3t. Ripley, Chautauque Co., N. Y

### LEHIGH MOUNTAIN SPRINGS WATER CURE.

ALL diseases are cureable with Water, Air, and Diet, at this celebrated Institution. Beautiful scenery, pleasant drives, walks, and rowing connected with the Cure. Address
A. SMITH, M. D.
June, 1858.—1t* Bethlehem, Pa.

### CHESTER WHITE PIGS FOR SALE.

I SHALL be prepared, the coming season, to furnish pigs not akin, and suitably paired, bred from premium and other stock. Also, I tender thanks to my friends in Ohio and other States, for the liberal patronage I have received the past three years. Address
H. T. WOLLARD,
June, 1858.—0t Castine, Darke Co., Ohio.

### NURSERYMEN, FLORISTS, AND AGRICULTURISTS,

PAUL BOSSANGE, Agent for LOUIS LEROY, of the GRAND JARDIN, Angers, France, begs to announce that he is now fully prepared to execute all orders for Fruit, Forest, and Ornamental Trees, Shrubs, Flowers, &c.

Catalogues of the prices current, embracing shipping and insurance charges, and all other needful information, may be had (gratis) on application to PAUL BOSSANGE,
June, 1858.—4t. 20 Beekman street, New York.

### KEDZIE'S WATER FILTER.

THE SUBSCRIBERS give notice, they have made arrangements with Mr. KEDZIE, the Patentee of this justly celebrated Filter, to manufacture under his own supervision, and sell at former retail prices, and discount to dealers, as when made by J. E. CHENEY & Co.

For circulars or Filters, address only
JAMES TERRY & CO.,
59 and 61 State-st., Rochester, N. Y.; the old stand of J. E. CHENEY & Co. May, 1858.—2t

### BURRALL'S NEW ADJUSTABLE MOWER & REAPER

IS UNEQUALLED in compactness, strength, and effective power—it is *single geared*, the *draft light*, the *cut perfect*, *guards strong*, and *easily taken off for grinding*. It discharges the grain in the rear, or at the side; is thrown out of gear *while in motion*, runs on a *large caster wheel* in front, and has *no bearing on the horses*. It has, in short, all the *best points* of the *best machines*, in the simplest form, and above all, one *recent improvement* found in no other, by which *the driver can raise the finger bar to its full height*, (for carrying a swath, or travel on rough ground,) by a touch of his hand, without leaving his seat or stopping his team. *Nothing can surpass this beautiful movement*, nor can its value be fully appreciated till seen in operation.

Made and sold (warranted) at Geneva, Ontario Co., N. Y.
June, 1858.—1t THOMAS D. BURRALL.

## THE NEW AMERICAN CYCLOPÆDIA.

### REASONS FOR BUYING IT,
AND
### THE WAYS AND MEANS OF BUYING IT.

THE NEW AMERICAN CYCLOPÆDIA is popular without being superficial, learned but not pedantic, comprehensive but sufficiently detailed, free from personal pique and party prejudice, fresh and yet accurate. It is a complete statement of all that is known upon every important topic within the scope of human intelligence. Every article in it has been specially written for its pages by men who are world-renowned upon the topics of which they speak. They are required to bring the subject up to the present moment; to state just how it stands *now*. All the statistical information is from the *latest* reports: the geographical accounts keep pace with the latest explorations; historical matters include the freshest just views; the biographical notices not only speak of the dead, but also of the living, and of the living up to within the last half year.

And the work is *cheap:* three dollars a volume; and each volume contains more—we have carefully computed the contents o both—more than the whole six volumes of Bancroft's history, which are sold at two dollars a volume, making in all twelve dollars. Every family ought to possess a copy of the New Cyclopædia. It is a library in itself. Let each man save twenty-five cents a week, and by the time the work is complete he can not only own the fifteen volumes, but also a handsome book-case to keep them in. Save five cents a day, (a little self-denial will do it,) and you save enough to buy a set of books which will give you sound information upon all points about which you wish to inquire. School children,—certainly the members of our High schools,—can all have it. Save the pennies which are given to you, run errands and "do chores" when you can, and thus earn a quarter of a dollar a week,—and the task is done. Mechanics; you have not much time to read; this then is just the work for you; it will help you upon all points of inquiry, and three-hours *over-work* per week will buy it. Lawyers, physicians, clergymen! it will give breadth and accuracy to your information, and add largely to your influence and income.

### THE NEW CYCLOPÆDIA

Will be completed in 15 volumes royal 8vo.; $3 per volume, in cloth; $3.50 in library leather; $4 in half morocco; $4.50 in half Russia extra. D. APPLETON & CO., Publishers,
June, 1858.—1t Nos. 346 & 348 Broadway, New York.

### Removal to New York
OF
### THE HORTICULTURIST.

A LONG connection with the public as a publisher, and especially of agricultural and horticultural works, as well as an innate and fostered love of these topics, has induced me to become the

PROPRIETOR OF THE HORTICULTURIST,

a journal which has long maintained a prominent place in the homes of a large circle of patrons throughout the Union, and British Provinces. It is my belief, that by devoting almost exclusive attention to this publication, its influences for good may be greatly extended.

The interest in Horticulture having greatly increased during the publication of this periodical under the successive editorial management of A. J. DOWNING, B. MUNN, P. BARRY, AND ITS PRESENT EDITOR, J. JAY SMITH, we hope that it will now enter upon an enlarged sphere of usefulness.

**TERMS.**

TWO DOLLARS A YEAR, PAYABLE IN ADVANCE.

The Edition with colored Plates, FIVE DOLLARS.

Pledging every effort in my power to make THE HORTICULTURIST worthy of the confidence, and patronage of the public, SUBSCRIPTIONS ARE SOLICITED.

Address all business communications to
C. M. SAXTON, Publisher.
June, 1858.—It 25 Park Row, New York.

### ALBANY TILE WORKS.
**Corner Clinton Avenue and Knox Sts., Albany, N.Y.**

THE SUBSCRIBERS, being the most extensive manufacturers of Draining Tile in the United States, have on hand, in large or small quantities, for Land Draining, Sole and Horse-shoe Tile, warranted superior to any made in this country, hard burned, and over one foot in length. Orders solicited. Cartage free.
C. & W. McCAMMON. Albany, N. Y,

DANA & Co., Agents, Utica.
JAS. WALKER & Co., Agents, Schenectady. April—6t

### SUPERIOR LAND PLASTER.

FRENCH & CHAPPELL, 69 Exchange street, Rochester, N. Y., (successors to SHUMWAY & SMITH, at old stand,) keep on hand, for Farmers' use, Garbutt's Celebrated Land Plaster. Price reduced from last year's rates. One dollar invested in Plaster returns fifty to the Farm. May, 1858.

A BOOK FOR THE SEASON.

### THE GARDEN; A NEW POCKET
MANUAL OF PRACTICAL HORTICULTURE. Everybody who owns or rents a garden, large or small, will find this best of all garden manuals indispensable. It gives full directions for the cultivation of

ALL THE KITCHEN VEGETABLES;
ALL KINDS OF FRUITS AND BERRIES;
ALL SORTS OF FLOWERS AND SHRUBS; AND
ALL THE BEST ORNAMENTAL TREES.

It tells all about

SOILS AND MANURES; VEGETABLE GROWTH; AND
THE STRUCTURE OF PLANTS; WHAT PLANTS LIVE UPON;

and shows

HOW TO PREPARE THE GROUND;
HOW TO SOW SEEDS;
HOW TO CULTIVATE:
HOW TO GRAFT AND BUD;
HOW TO PRESERVE FRUITS AND VEGETABLES;
HOW TO DO EVERYTHING.

It is

POPULAR, RELIABLE, FULL OF INFORMATION,
PRACTICAL, COMPREHENSIVE, VERY CHEAP.

You may readily understand it, easily remember its directions, and without difficulty put them in practice. It is *multum in parvo*, and may be carried in the pocket. Adapted to all sections, and sold everywhere. Orders should be sent in at once. Price, in paper, 30 cents; in muslin, 50 cents.

The Series of four "Rural Hand-Books" to which this belongs—"The House," "The Garden," "The Farm," and "Domestic Animals" will be furnished to subscribers ordering them at the same time for $1. Address

FOWLER & WELLS, 308 Broadway, New York.
May, 1858.—2t

### WEBSTER'S QUARTO DICTIONARY,
**UNABRIDGED.**

*Containing* THREE TIMES *the matter found in any other English Dictionary compiled in this country, or any Abridgment of this work; a* GEOGRAPHICAL TABLE *of* 12,000 *Names;* ILLUSTRATIVE QUOTATIONS, *and other peculiarities and advantages found in no other work.*

PUBLISHED BY G. & C. MERRIAM, SPRINGFIELD, MASS, AND SOLD BY ALL BOOKSELLERS.

From Prof. HAVEN, of the University of Michigan.

If called upon to sacrifice my library, volume by volume, the book which I should preserve longest, except the Bible, is the AMERICAN DICTIONARY OF THE ENGLISH LANGUAGE, by Dr. WEBSTER. E. O. HAVEN.

All young persons should have a standard DICTIONARY at their elbows. And while you are about it, GET THE BEST; that Dictionary is NOAH WEBSTER'S—*the great work, unabridged.* If you are too poor, save the amount from off your back, to put it into your head.—*Phrenological Journal.*

Every *farmer* should give his sons two or three square rods of ground, well prepared, with the avails of which they may buy it. Every *mechanic* should put a receiving box in some conspicuous place in the house to catch the stray pennies for the like purpose. Lay it upon your table by the side of the Bible; it is a better expounder than many which claim to be expounders. It is a great labor saver;—it has saved us time enough in one year's use to pay for itself; and that must be deemed good property which will clear itself once a year. If you have any doubt about the precise meaning of the word *clear* in the last sentence, look at Webster's thirteen definitions of the *v. t.*—*Mass. Life Boat.*
May, 1858.—3t

### WILLIAM BROWN,
### COTE DES NEIGES NURSERIES,
*MONTREAL C. E.*

BALSAM FIR Seed, or Balm of Gilead, $1 per pound.
Hemlock Spruce, $2 per pound.
Warranted fresh and sound.
European Sweet Briar, for Rose Stocks, two years, $5 per 1,000
European Ash, two years, $5 per 1,000.
Acer campestre, English Maple, two years, $5 per 1,000.
The Sweet Briar takes the bud freely for Rose Stocks, and is offered at one-tenth of the price of Manetti Stocks.
WM. BROWN, Nurseryman,
May, 1858—6t Montreal, C. E.

## FRESH FRUITS ALL THE YEAR.

## THE YEOMANS FRUIT BOTTLE.

(PATENT APPLIED FOR.)

It possesses many important advantages over every other Can or Jar heretofore brought to public notice.

FIRST.—It is made of glass, and will not corrode and poison the fruit; and being transparent, the condition of the fruit can at all times be seen, while they are so easily cleansed, that they are as good as new for succeeding years.

SECOND.—They are more readily sealed up securely, than any other Can, Jar, or Bottle.

THIRD.—The shape of the neck is such that the cork cannot be forced in by the atmospheric pressure on it, caused by the cooling and consequent contraction of the fruit in the bottle: and also with a neck of such length that the contraction will not bring the fruit below the neck, so that if there should be, as there sometimes will be, a slight mold on the surface, the surface being so small, very little fruit would be thus injured, and that little could be very easily removed; while the shape of the bottle below the neck is of such a taper, that the fruit comes out readily.

FOURTH.—They are cheaper than any other Bottle, Jar, or Can of merit, that has yet been brought before the public, and *so cheap* as to be within the reach of all.

### DIRECTIONS.

Cook or stew the fruit in its own juice, with water enough only to keep from burning it, with sugar enough only to flavor it to the taste; or omitting the sugar entirely till opened for use, as you please; until it is cooked through in every part, keeping it well covered while cooking; then with a small dipper or large spoon, and a Tunnel for the purpose, fill the Bottle, which should be standing in a pan of warm or hot water, to prevent its breaking; when full immediately cork by pressing the cork down to the jog in the neck, then with an iron spoon, or anything else, rub a little wax over the surface of the cork, and soon after dip the top of the bottle into the hot wax, which completes the sealing. Keep in a cool, dry place.

WAX FOR SEALING.—An excellent sealing wax is cheaply made of about one pound Rosin to an ounce of Tallow, to give it toughness.

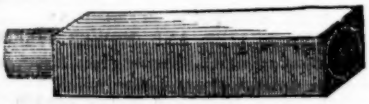
CORKS, &c.—Corks to fit will be furnished, when ordered, at twelve shillings per gross, (extra,) and by putting a small, stout twine, double, across the mouth of the bottle when corking, the cork, may be easily extracted without injury, and kept for future use.

These bottles are stout and strong, holding a little short of a quart, and two quarts, and put up in original boxes of six doz. two quarts at $1.50 per doz.; and twelve doz. quart, at $1 per doz., deliverable at New York City, or at Palmyra, Wayne Co., N. Y.

Smaller quantities ordered from a distance, so as to require repacking, will be charged 25 per cent. additional. TERMS, INVARIABLY, CASH.

☞ To secure a supply, orders should be made early, as the Glass Works go out of blast in June, and the whole seasons supply must be made in May. Orders and letters of inquiry will receive prompt attention. T. G. YEOMANS.

Dated, Walworth, Wayne Co., N. Y. June, 1858.—1t



## WOODEN WATER PIPE.

MANUFACTURED BY

**I. S. HOBBIE & CO., Rochester, N. Y.**

THIS pipe is cheap, durable, easily laid down, not liable to get out of order, and leaves water pure and sweet. The above cut represents one section 8 feet long, 3¼ inches square, with a bore 1 5-8 inches, which is also the proper size for chain pump tubing. The price is 4 cents per foot at the factory. It is warranted to give entire satisfaction.

REFERENCES—Any person having it in use. Address

I. S. HOBBIE & CO.

June, 1858.—1t 44 Arcade, Rochester, N. Y.

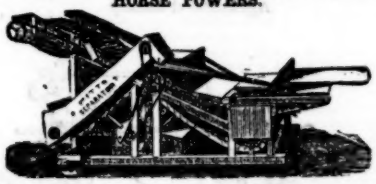
**PERKIN'S CORN-HUSKING MACHINE.** $5 50.—AGENTS WANTED to solicit orders in every town and county.—Terms unusually liberal. Address J. PERKINS & CO.

June, 1858.—2t* West Killingly, Conn.

## ROCHESTER AGRICULTURAL WORKS.

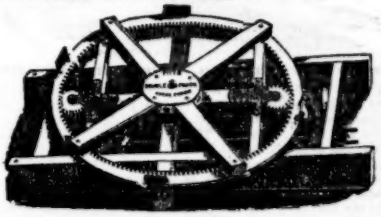
### ATTENTION, THRESHERS!

### PITTS' PREMIUM SEPARATOR, & DOUBLE PINION HORSE POWERS.



THE above cut is a representation of the justly celebrated PITTS' MACHINE FOR THRASHING & CLEANING GRAIN, at one operation. It is the best Machine for thrashing and cleaning grain in existence.

The following cut represents PITTS' DOUBLE PINION EIGHT OR TEN HORSE POWER.

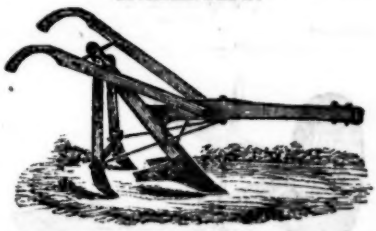


As a superior and every way reliabe Horse Power, the above stands unrivaled.

We call attention to the fact that we are now manufacturing the above Machines at Rochester N. Y., in a more substantial and durable manner, and of a larger capacity than any hitherto built in this city, having all the latest improvements made by John A. Pitts.

We can furnish the latest and best all iron Power, for eight, ten, or less number of horses.

### HYDE & WRIGHT'S PATENT HORSE HOE OR CULTIVATOR PLOW.



Designed and better adapted than any other implement for hoeing Corn, Broom Corn, Potatoes, Cotton, or any other crop requiring the use of the Horse or Hand Hoe. It has proved itself the most valuable implement yet invented for the purpose intended. It has been in use in Western New York for the past five years—hundreds of them having been sold on trial, and none returned. Its great utility has been demonstrated in the fact that one day to the acre, with a man and horse, is all the expense of cultivating and hoeing a field of corn for the season. If used as directed, hand hoeing, in nine cases out of ten, may be entirely dispensed with. We have numerous certificates of the most satisfactory character, which we would be happy to show the public.

Price, $8; if ground and polished, $8.50; No farmer should be without one. They are having an unlimited sale. Sold at wholesale and retail.

### ONE HORSE MOWER.

We offer STODDARD'S Mower to the Farmer as preferable to every other Mower. It will cut salt, tame, or prairie grass, will do its work well, does not clog, *will cut as much per hour, with one horse*, as any other Mower *with two horses*, its draft in cutting is only from 80 to 110 lbs. Cuts 4 ft. 2 inches. Price, $100.

Farmers who desire to secure one of the above Mowers, will please make immediate application, as we can make only a very limited number this season. We have the exclusive right for the counties of Monroe, Orleans, and Wayne.

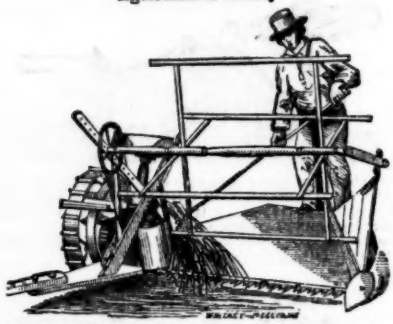
### ROCHESTER CUTTING BOX.

All who are in want of a Feed Cutter, adapted equally well to the cutting of all kinds of fodder, will find our Cutting Box in all respects to answer their wants. A. GORDON & CO.

June, 1858—1t 68 South St. Paul-st. Rochester, N. Y.

## FOR THE HARVEST OF 1858.

**The best Combined Reaping and Mowing Machine in use, as endorsed by the United States Agricultural Society**



**Manny's Patent with Wood's Improvement.**

IT is with much pleasure and renewed confidence, that I offer my machine to the Farmers for the coming harvest, with all its improvements and increased high reputation as a combined Machine and single Mower. The large sale the past season, and great success at the National Trial of Harvest Implements at Syracuse in July last, where it was awarded one Gold and two Silver Medals, is conclusive to every unprejudiced farmer that it is the most approved machine of the kind in use, and the subscriber begs to say that they will be perfect and complete in workmanship and material, and are offered to them on terms accommodating and suited to the times. With each machine will be furnished two scythes, two extra guards, two extra sections, one extra pinion, and wrench.

Warranted capable of cutting from 10 to 15 acres of grass or grain per day, in a workmanlike manner.

Price of Machines as heretofore. The Combined Machine varies in price according to width of cut and its adaptation in size and strength, to different sections of the country, from $125 to $150, delivered here on the cars,

Price of Single Mower, steel bar,.....$115.00

WALTER A. WOOD,
Manufacturer and Proprietor,
May, 1858.—tf Hoosick Falls, N. Y.

## KETCHUM'S COMBINED HARVESTER FOR 1858.

THE improvements on this celebrated Machine for 1858 will render it the most desirable machine ever offered to the public. Among these improvements are the following:—

1st. An expanding Reel, very simple and ingeniously arranged so as to be readily attached, and is propelled by the main shaft.

2d. A new, strong, and well-braced guard, which will not clog.

3d. An adjustable Roller with a lever, by which the driver, while in his seat, can elevate the finger-bar and hold it in any desired position, for transportation, to pass over obstructions, and to aid in backing or turning corners.

4th. A Roller in the outer shoe, on which the finger-bar rests, which obviates all side draft and very much lessens the direct draft.

The SIMPLE MOWERS have wrought-iron frames, with all the other improvements except a Reel. With these improvements the draft of the KETCHUM machine is as light as any machine known, and by the test with the Dynamometer at Syracuse, by the U. S. Ag. Society last July, the draft of the reaper was more than one-quarter less than any other of the 13 Reapers on trial. This result is obtained by enlarging the main wheel for Reaping, which lessens the motion of the knives and the actual draft of the machine fully one-quarter.

The VERY BEST MATERIAL is used throughout, and no pains or money are spared to made the KETCHUM MACHINE what the farmer needs.

Sample machines can be seen at all the principal places, and persons are invited to examine them before buying any other—remembering that THE BEST IS ALWAYS THE CHEAPEST.

Manufactured by R. L. HOWARD, Buffalo, N. Y.,
May, 1858.—3t (Near N. Y. Central Depot on Chicago st.)

## NEW ENGLAND SETTLEMENT.

TO ALL WANTING FARMS IN A MILD CLIMATE AND HEALTHY PLACE.

**Twenty-Three Miles from Philadelphia.**

ON the Camden and Atlantic Railroad, New Jersey, an old estate has recently been opened for sale, and the first division of 10,000 acres divided up into farms of twenty acres and upwards. The soil is of the best quality for the production of fruit, grain, &c. The price is from $15 to $20 per acre, payable in easy quarter yearly instalments, within a term of four years, with interest. The terms are made easy, in order to ensure the rapid improvement of the land, by enabling every industrious man to buy a farm. It is now being extensively improved by good roads, and some of the best citizens from New England are erecting large improvements. It is a scene of the greatest improvements out of Philadelphia. Practical farmers from the length and breadth of the Union are settling there. It is an important business place, on account of its being in the midst of a great market. Every article raised upon this land finds an immediate sale. The water is excellent, and no such thing as fever is known.

The soil is a sandy or a clay loam, with a clay bottom, and retentive of manures. It is free of stones, and easily worked. It abounds largely in the phosphates, and such is its fertility, that from the crops produced both upon this land and the large area adjoining under cultivation, it will be found by statistic report not to be excelled anywhere, in the production of crops most adapted to its market. The reader may be well aware that the earliest and the best fruits and vegetables come from New Jersey, which are annually exported to the extent of millions of dollars. The land, besides being accessible in every way for fertilizers, has an abundant supply of the best quality of muck manure.

Lumber and building materials can be had on the spot, at a cheap price, from the mills. Other mills are now being opened, and brick yards being started on the ground. A person can put a frame tenement for present convenience, for one hundred dollars. On account of the extensive emigration, this is the best course to pursue, in order to get a place to live in at first. Carpenters and builders are on hand to put up buildings on the best terms.

In settling here, the emigrant has many advantages. He is within a *few hours'* ride of the great *cities* in the *Middle States* and *New England*. He is near his old friends and associations. He is in a *settled* country, where every improvement and comfort of civilization is at hand. He is in a *healthy* place, and is not subject to the certainty of losing the greater part of his family and his own health by those malignant fevers which make the graves of so many of the young and hardy, in far-off regions away from home and friends. Besides, he has a mild climate and an open winter. There are three trains daily to Philadelphia; and to all those who improve, the Railroad Company gives a *free ticket*.

The reader will at once be struck with the advantages here presented, and ask himself why the property has not been taken up before. The reason is, it was never thrown in the market; and unless these statements were correct, no one would be invited to examine the land before purchasing. This all are expected to do. They will see the land under cultivation. They will meet persons no doubt from their own neighborhood. They will witness the improvements, and can judge of the character of the population. Persons should come prepared to purchase, as many are locating and locations are not held on refusal.

Title indisputable. Warrantee deeds given.

ROUTE TO THE LAND.—Leave Vine street wharf, Philadelphia, for Hammonton, by railroad, at 7½ A. M. 4 P. M. When there, inquire for Mr. BYRNES. Boarding conveniences will be found. A hotel is also at Vine street wharf.

☞ Letters and applications can also be addressed to S. B. COUGHLIN, 202 South Fifth street, below Walnut street, Philadelphia. Maps and information cheerfully furnished. 1t.

## THE SEYMOUR & MORGAN SELF-RAKING REAPER AND MOWER COMBINED

WHAT FARMERS SAY OF IT!—EXTRACTS FROM LETTERS, &c.

"It is simple, durable, and well made."

"It not only cuts well, but rakes off the grain splendidly."

"The grain can be bound with three-fourths the labor that I can when raked by hand."

"My boy, fourteen years old, cut 170 acres with it this season, and did the work better than can be done by the old hand-raking reapers."

"It mows admirably in all kinds of grass."

"I bought one in 1856, cut 240 acres with it, and sold it for what it cost. Bought another in 1857, which worked as well as the first."

Farmers! if you want to economize in these times, better apply at once to us or one of our agents for one of the above machines.

SEYMOUR, MORGAN, & ALLEN,
May, 1858.—2t Brockport, Monroe Co., N. Y.

## A. LONGETT,

No. 34 CLIFF STREET, NEW YORK,

DEALER in Peruvian, Colombian and Mexican Guano, Superphosphate of Lime, and Bone Dust.

November 1, 1857.—1y.

IMPORTANT TO

## FARMERS AND GARDENERS.

FOR SALE—ABOUT 2000 ACRES OF GOOD GARDEN AND FARM LAND, in the town of ISLIP, Long Island, about 43 miles from the city of New York, by the Long Island Railroad. This land offers great opportunities for Gardeners and Farmers who may wish to settle on Long Island, the soil being a fine warm yellow loam, entirely free from stone or swamp; is from 18 inches to 3 feet deep, and will produce by ordinary culture all kinds of grain and fruits that can be produced in the vicinity or latitude of New York. There is not much wood on it, though fifteen years ago it was heavily timbered. The whole tract is what may be called an elevated table-land, with a southern aspect, sloping to the south about 20 feet to the mile, and at the railroad, on the north side or north end of this tract, the surface is 100 feet above tide water, distant 5 miles from the shore of the Great South Bay. Good water can be had on any part of the land by wells, which on the north, near the railroad, are 40 feet deep, with never-failing water, and on the southerly parts from 12 to 20 feet deep. The water on this part of the island is of remarkable purity, and the wells and streams never fail. This part of Long Island is famous for its fine trout streams. The climate is healthy and pleasant; meteorological records show that the temperature is ten degrees milder on Long Island in winter, and ten degrees cooler in summer, than the main shore in the same latitude. The summers on Long Island are particularly pleasant, as the air is always tempered by the sea-breeze, and yet there are more clear and sunny days in the year on Long Island than in any other part of the State of New York.

Wood and timber grow rapidly on the island. Every 18 or 20 years will produce a growth of wood large enough for market.

The forest trees on this part of the Island are oak in variety, chestnut, hickory, and locust, formerly in great abundance. On my land there is but little oak or chestnut, and but little or no pine of large growth, as the timber and wood have been destroyed by the axe, and by frequent burnings during the past 15 years, though there is a good deal of wood on portions, suitable for firewood; on some parts a new and thrifty growth has started, and in some places a change of forest, from pine to oak, seems to be taking place. The shrub or *scrub oak* of Long Island, about which so much has been said in connection with these lands, is not a tree, nor ever can be made a tree, or become a tree, no more than a lilac bush or quince, in any soil, no matter how rich or fertile. It is a distinct shrub or dwarf, called also the *bear oak*, producing great quantities of acorns, and never grows more than five or ten feet high, and on the Island it seems to perform the part of a bramble to overrun the land. It is of very vigorous growth, filling the ground full of its roots almost like a mat, and where the forest trees have been destroyed by the axe or fire, these little oaks soon take entire possession of the ground, and grow so rank or vigorous that they smother and crowd out everything else. When the ground is cleared or made clear of these roots, by the process of digging them out by the hand or grubbing, as is the old and common mode on the Island, from 20 or 40 loads of these roots are often taken from a single acre, in less than 10 inches from the surface, thereby showing the large amount of vegetable matter contained in the soil. The true and economical plan of clearing this land, is to kill and decompose this large quantity of these small roots in the ground, which can be very easily done by cutting over and fallow-burning the land, and then harrow in a crop of rye or wheat, with clover and grass seed, or it can be plowed with a strong plow, made with a locked-coulter, with a sharp edge on both the coulter and share; with such an instrument, with two yoke of good oxen, the ground can be completely and thoroughly broken up. The large stumps are mostly decayed or burnt out. The large, heavy "prairie plow" is not required. There is an abundance of oak and chestnut in the immediate vicinity, where the wood lands have been taken care of.

As to productions, white clover is indigenous; wherever the ground is cleared of trees and bushes, it springs us spontaneously, and any part or all this tract can be filled with red clover by simply putting the seed on the ground after the surface is cleared, without a particle of any fertilizer. All kinds of small fruits are natural and in great abundance, such as wortleberries, blackberries, raspberries, strawberries, and grapes. Apples, pears, cherries, quinces, plums, peaches, and apricots, grow well, and most of these grow in great quantity and high perfection. Wheat, rye, corn, clover, and timothy, and everything that grows or can be raised on any farm, or in any garden on the Island, are produced in full crops on this land by ordinary culture, and without any difficulty—it is easy to clear, and easy to till.

The land near and adjoining the L. I. Railroad, is, or has been, mostly covered with yellow pine; the growth was very heavy on it formerly. It may here be remarked that the pine lands of Long Island are different from and entirely unlike all and any other pine lands in the State of New York or in New England, and in this difference consists the great merit of these Islands for high culture. The soil and subsoil are not loose and porous—the soil is a fine, firm, compact loam, of sufficient tenacity to make sun-dried brick right out of the first 12 or 18 inches of the surface soil, on thousands of acres of these middle Island lands, and yet is not wet, nor cold, nor sour.

I am asked, "Does the land need underdraining?" Answer—No! It is the most completely and perfectly underdrained country in the world; no art can equal it, no human power can make anything like it.

After penetrating or going through the peculiar covering of the Island, the detritus or soil proper, which is everywhere spread over the Island's surface like a crust or blanket, to the depth of from 18 inches to three or five feet—in many places to a much greater depth than five feet—after going through this, the fine, hard, and compact gravel and sand are reached, which everywhere form the main body of the Island. This understructure consists in many places of beautiful sea-washed quartz pebbles, intermixed with fine silicious sand, all firmly and hardly pressed together, forming the most complete and perfect underdrain or filter. In many places clays are found. "Sands and loams, interstratified with beds of gravel, boulders, and clay, form the strata of Long Island."—(See Thompson's History of Long Island. In some parts of the Island clays are very abundant, from which large quantities of brick are made.

It may be inferred from this description, that the earth or soil is leachy, or too porous. It is not so, and this is another peculiarity of the Island. These under-sands and gravel are so firm and hard, that it seems as though they had been under an immense hydraulic pressure—(there are no quicksands)—they are so firmly placed together, the interstices so filled with fine comminuted sand, almost levigated, the water does not pass rapidly through it but percolates slowly and gradually after leaving the surface.—After rain the water soon disappears from the surface, so as to leave the soil in a condition to work very soon. This great underground work forms a vast reservoir of subterraneous moisture of water, so far below the surface as to prevent any injury to vegetation, or not to interfere with the temperature of the earth, commonly called "bottom heat," but which supplies the numerous beautiful streams that arise near the central parts of the Island, and flow to the shores. The waters of these streams are copious and clear as crystal, as sweet and pure as water can be, never fail at any season of the year, are nearly or quite as full in July and August as in April or May. Such a thing as a dry mill-pond in the month of August, on one of these Island streams, is unknown. There is not a stagnant pool nor stream on the whole Island.

Another remarkable feature is, that on lands or farms not supplied with springs or streams, the manner in which water is held on the surface—the farmers adopt a mode of making "surface pools,' or what are termed "watering holes," to afford water for cattle. They are made simply by excavating a sort of basin in some place in the field or on the farm where there is a gentle depression, by *scooping out the earth*, two or three feet deep in the middle, or 15 or 20 feet in diameter, and in some places puddling the bottom with clay; in many places they need no puddling, only pressing or treading the soil firmly in the bottom. These places being filled by the rains, retain the water the whole summer without change or putrescence, and which cattle will use freely. It is seldom that one of these watering places fail, even in the dryest season. They are made on the elevated parts of the Island more than 100 feet above tide-water, and may be called "open" or "surface cisterns." I have never seen anything of the kind in any other part of the State of New York that would hold water during the entire summer. Tornadoes, floods, or freshets are unknown on Long Island, nor is the country infested with deadly serpents or poisonous reptiles.

No part of this tract is more than five miles from navigation, thus, in fact, having the advantages and privileges of both railroad and water communication with the City of New York, the best market, probably, in the world, where a sure cash market can always be had for everything that the farm or garden produces. I regard this land as having all the prospective advantages of a new country, without any privations or hardships commonly attendant on the settlement of a new country—all the privileges and benefits of old and long established settlements being close by.

Islip is an old town, having been settled near 200 years: and there are within three miles of this land many elegant and costly mansions, and highly cultivated farms and gardens, schools and churches. These cultivated lands are valued at, and now command, from $100 to $500 per acre, and they are no better than this now offered. This land will be sold in lots or parcels to suit purchasers, at $20 per acre. Terms, from 10 to 25 per cent., at the option or convenience of the purchaser, cash, the balance in five years with yearly interest. Title indisputable.

More than fifteen years experience with an observation of these lands, satisfy me beyond all doubt of the truth of everything I have said in relation thereto; and of the facts I speak from personal positive knowledge, and I hold myself responsible to sustain everything I have ever said in relation to the Island and its lands, water, soil, climate, and health.

As a premium or inducement to settle and improve this land, I will give to each purchaser, or settler, who will make improvements (until further notice,) a commutation ticket to pass over the Long Island Railroad between Brooklyn and North Islip, for one year, and also will carry out his freight, lumber, and building materials at my own cost or charge, for one year. Address

EDGAR F. PECK, M. D., 302 State-st., Brooklyn, N. Y.

or, apply by letter or in person, to

ANTHONY J. BLEECKER & SON,
No. 7 Bond-st., New York.

To the Post Master, Suffolk Station, North Islip, Long Island, N.Y.

Refer as to title and quality of land, to the Hon. Levi S. Chatfield, late Attorney General of the State of New York, No. 6 Wall street, New York.

To the Hon. George Miller (late Judge and Surrogate of Suffolk county,) Riverhead, Suffolk county, Long Island, N. Y.

Apply also to Samuel Coverly, No. 10, State-st., Boston, and to John H. Wiles, Buffalo, N. Y. June, 1858.—1t

**Prices of Agricultural Products at the Principal Markets in the United States, Canada and England.**

| | NEW YORK, May 24th. | PHILADELP'IA, May 24th. | ROCHESTER, May 25th. | CHICAGO, May 24th. | TORONTO, May 22d. | LONDON, ENG., May 5th. |
|---|---|---|---|---|---|---|
| Beef, per 100 lbs., | | | $4.50 @ $6.00 | | $6.00 @ $7.00 | $8.25 @ $15.00 |
| do mess, per bbl., | $10.50 @ $11.50 | $15.00 @ $17.00 | | $9.00 @ $11.00 | | |
| Pork, per 100 lbs., | 6.75 7.50 | | 5.00 6.00 | 5.00 5.75 | | 10 50 15.00 |
| do mess, per bbl., | 17.00 17.50 | 18.00 18.50 | 16.00 17.00 | 16.00 17.50 | | |
| Lard, per lb., | .11 .11¼ | .11½ .13 | .11 .12 | .09½ .10½ | .10 .25 | .18 .17 |
| Butter, do | .15 .23 | .12 .16 | .14 .15 | .15 .18 | | .19 .30 |
| Cheese, do | .06 .08 | | .07½ .09 | .06 .10 | | .18 .15 |
| Flour, per bbl., | 4.00 7 50 | 4.87 6.00 | 4.00 5.50 | 2.25 5.25 | 3 60 4.15 | 5.28 6.00 |
| Wheat, per bush., | .82 1.25 | .80 1.25 | .87 1.00 | .60 .90 | .70 .90 | 1.17 1.33 |
| Corn, shelled, per bu., | .68 .76 | .64 .71 | .55 .60 | .38 .50 | | 1.02 1.06 |
| Rye, do | .67 .70 | .66 .68 | .48 .50 | .50 .58 | .55 | .84 .90 |
| Oats, do | .30 .47 | .37 .40 | .36 .37½ | .25½ .29 | .30 .32 | .63 1.02 |
| Barley, do | .59 .63 | .60 | .40 .50 | .25 .35 | .30 .45 | .78 1.17 |
| Clover Seed, do | 4.20 4.60 | 4.25 4.37½ | 3.50 4.00 | 4.50 5.00 | 4.50 5.00 | 5.00 7.35 |
| Timothy Seed, do | 2.00 2.25 | | 2.00 2.50 | 1.50 1.75 | 1.50 1.75 | |
| Flax Seed, do | 1.68 1.75 | 1.55 1.60 | 1.00 1.12½ | .70 .90 | | 1.74 1.80 |
| Hay, per ton, | 7.40 10.00 | | 7.00 11.00 | 4.50 7.00 | 12.00 17.00 | |
| Wool, per lb., | .24 .42 | .27 .45 | .20 .30 | | .16 | .26 .38 |
| Wood, hard, per cord, | | | 4.50 5.50 | 4.00 6.50 | 4.00 4.50 | |

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